

1903.
—
LEGISLATIVE ASSEMBLY
NEW SOUTH WALES.

MOUNT KEMBLA COLLIERY DISASTER

31 JULY, 1902.

REPORT OF THE ROYAL COMMISSION, TOGETHER, WITH MINUTES OF EVIDENCE AND EXHIBITS.

Printed under No. 1 Report from Printing Committee, 9 July, 1903.



SYDNEY: WILLIAM APLAGATE GULLICKS, GOVERNMENT PRINTER.

ROYAL COMMISSION OF INQUIRY RESPECTING THE MOUNT KEMBLA
COLLIERY DISASTER

Commission.

EDWARD THE SEVENTH, by the Grace of God, of the United Kingdom of Great Britain and Ireland,
and of the British Dominions beyond the Seas, King, Defender of the Faith, Emperor of India.

To Our Trusty and Well-beloved—

CHARLES EDWARD MONTAGUE MORRIS, Esquire, one of the Judges of the District Court
appointed in and for the Metropolitan, Suburban, and Hunter District Court of
the State of New South Wales, President,

DANIEL ALDRIDGE WILKINSON ROBERTSON, Esquire, and
DAVID RITCHIE, Esquire,—

Greeting:—

Know Ye, that We, rejoicing great trust and confidence in your ability, zeal, industry,
devotion, and integrity, do, by these presents, authorize and appoint you, or any two of you, as herein-
after mentioned, to make a diligent and full inquiry into the causes of the explosion that recently
occurred at the Mount Kempla Colliery, in the District of Illawarra, in Our State of New South Wales,
whereby many valuable lives were sacrificed; and also to investigate all the surrounding circumstances,
in order to ascertain whether blame attaches to any person or persons, and, if so, to report the person or
persons to whom, in your opinion, the blame attaches; and, further, to make any recommendations
affecting the general management, especially the regulations of collieries, and to offer any suggestions
which you may deem advisable for the amendment of the law relating to the working of Coal Mines,
especially with regard to the treatment of coal-dust, the prevention of the accumulation of dangerous
gases, and the use of safety lamps and explosives. And We do, by these presents, grant to you, or any
two of you, at any meeting or meetings to which all of you shall have been duly summoned, full power
and authority to and before just all such persons as you may judge necessary, by whom you may be
better informed of the truth in the premises, and to require the production of all such books, papers,
writings, and all other documents as you may deem expedient, and to read and inspect the contents of all
the same or any of them may be deposited, and to inquire of the persons by all
lawful ways and means. And Our Faithful will and pleasure is that you do, within one month after the
date of this Our Commission, certify to Us, in the Office of Our Colonial Secretary under your or any
two of your hands and seals, what you shall find touching the premises. And We hereby command all
Government Officers and other persons whatsoever within Our said State that they be obedient to you
and each of you in the execution of these presents. And We appoint you, the said Charles Edward
Montague Morris, to be President of this Our Commission, which said Commission We declare to be a
Commission for all purposes of the Act No 25 1901, intitled "An Act to consolidate the law relating
to the taking of Evidence by Commissioners under the Great Seal."

In testimony whereof, We have caused these Our Letters to be made Patent, and the Public Seal
of Our said State of New South Wales to be hereunto affixed.

Witness Our Trusty and Well-beloved Sir HARRY HENDERSON RAMSAY, Vice-Admiral
in our Royal Navy, Knight Commander of Our Most Honourable Order of the
Bath, Our Governor of Our said State of New South Wales and its Dependencies,
in the Commonwealth of Australia, at Sydney, in New South Wales, at witness,
the sixth day of November, in the second year of Our King, and in the year of
Our Lord one thousand nine hundred and two

(A.A.)

M H STEPHEN,
By Deputation from His Excellency the Governor

(A.A.)

By His Excellency's Command,
JOHN SEE

Entered on Record by me, in Registrar of Patents, No 24, page 260, this sixth day of November,
one thousand nine hundred and two

For the Colonial Secretary and Registrar of Patents,

CHRISTOPHER WALKER,
Principal Under Secretary.

Exhibit No. 34.—Report, dated 4th April 1932, by Inspector T. L. Bates, on inspection of Mount Kambila Mine	Page
(For copy, see Appendix, page 996.)	
No. 35.—Description taken at request on basis of map issued in October 1931 South Mine, on 19th July 1932	997
(For copy, see Appendix, page 997.)	
No. 36.—Letter from Jas. Mathison to A. Johnston, 14th December, 1931, re: Broken Hill South disaster, 1930. Letter from mine to mine, re same, 23th January, 1932	998
Letter from S. Hayes, Undersecretary, Mines, 1931 South B. Mine, to W. E. H. H. 24th February, 1932, re Broken Hill South disaster, 1930	
(For copy, see Appendix, page 998.)	
No. 37.—Analysis of coal dust from No. 1 Black Shale	999
(For copy, see Appendix, page 999.)	
No. 38.—Paper on creep in Beaufort West	1000
(For copy, see Appendix, page 1000.)	
No. 39.—Explosion in an air shaft at, Lydenburg	1001
(For copy, see Appendix, page 1001.)	
No. 40.—Plan of No. 1 Right Road, between 4th Right and 5th Right, prepared by Mr. W. Roberts	1002
No. 41.—Plan of No. 1 Right Road, showing No. 1 Road and adjoining workings, prepared by Mr. W. Roberts	1003
No. 42.—Plan of No. 1 Road Level roadway from 4th Right Road, prepared by Mr. W. Roberts	1004
No. 43.—Short history of Mount Kambila Colliery	1005
(For copy, see Appendix, page 1005.)	
No. 44.—Correspondence between the Mine Inspector and Mr. W. Roberts	1006
Letter from Mr. Roberts to Manager, Mount Kambila Colliery, 25th August, 1930	
Letter from Mr. J. Johnston to Manager, Mount Kambila Colliery, 27th September, 1930; 4th November, 1930	
Letter from Mr. Johnston to Manager, Mount Kambila Colliery, 4th March, 1931; 14th December, 1931	
Letter from Mr. Johnston to Manager, Mount Kambila Colliery, 15th January, 1932; 15th February, 1932	
Letter from Mr. Johnston to Manager, Mount Kambila Colliery, 15th March, 1932	
(For copy, see Appendix, page 1006-1007.)	
No. 45.—Correspondence on the conditions of Curatula Colliery	1008
Report on Curatula Colliery, 15th September, 1930, by John Wynne and N. Vandy, Chief Inspector	
Letter from D. Kitchin, District Secretary, Transvaal Mines, 14th September, 1930 to J. R. Brown, Inspector of Mines	
Letter from D. Kitchin to Manager of Curatula Colliery, 14th September, 1930	
Telegram from A. Johnston to Inspector Brown, 27th September, 1930	
Report by Inspector Brown on inspection of conditions of Curatula Colliery made by Chief Inspector, 14th September, 1930	
Memo by Chief Inspector, 14th September, 1930, to Under Secretary, Department of Mines, as above	
Memo by Under Secretary, and Memo by Mine Inspector	
Letter, 14th September, 1930 from Under Secretary to Manager of Curatula Colliery, District Secretary, Transvaal Mines	
(For copy, see Appendix, page 1008-1009.)	
No. 46.—Letter from Mr. Johnston to Mr. Brown, dated 24th May, 1932	1009
Letter from W. Brown to J. A. Johnston dated 4th May 1932 on conditions at South Vindolva Colliery	1010
(For copy, see Appendix, page 1010.)	
No. 47.—Report by Chief Inspector W. Brown and J. Douglas on Broken Hill Colliery, 25th September, 1931	1011
(For copy, see Appendix, page 1011.)	
No. 48.—Plan showing conditions of Mount Kambila Colliery before disaster, by Mr. W. Roberts	1012
No. 49.—Sketch sketch drawn by Mr. Latham of 4th Right pillars in Mount Kambila at time of 1931. The 1st was June 1930	1013
No. 50.—Chief Inspector's report on Curatula Colliery (Mount Kambila) available by request of inspectors made by J. Wynne and J. Finney on 24th and 25th June, 1930	1014
And 24th and 25th June 1931	
(For copy, see Appendix, page 1014.)	
No. 51.—Report on "Mines and Minerals" for March, 1932, of an explosion of gas in Curatula Colliery, 15th March, 1932	1015
(For copy, see Appendix, page 1015.)	
No. 52.—Report on Mines and Minerals for April, 1932, of an explosion of gas in Curatula Colliery, 15th April, 1932	1016
(For copy, see Appendix, page 1016.)	
No. 53.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1017
No. 54.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1018
(For copy, see Appendix, page 1018.)	
No. 55.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1019
(For copy, see Appendix, page 1019.)	
No. 56.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1020
(For copy, see Appendix, page 1020.)	
No. 57.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1021
(For copy, see Appendix, page 1021.)	
No. 58.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1022
(For copy, see Appendix, page 1022.)	
No. 59.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1023
(For copy, see Appendix, page 1023.)	
No. 60.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1024
(For copy, see Appendix, page 1024.)	
No. 61.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1025
(For copy, see Appendix, page 1025.)	
No. 62.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1026
(For copy, see Appendix, page 1026.)	
No. 63.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1027
(For copy, see Appendix, page 1027.)	
No. 64.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1028
(For copy, see Appendix, page 1028.)	
No. 65.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1029
(For copy, see Appendix, page 1029.)	
No. 66.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1030
(For copy, see Appendix, page 1030.)	
No. 67.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1031
(For copy, see Appendix, page 1031.)	
No. 68.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1032
(For copy, see Appendix, page 1032.)	
No. 69.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1033
(For copy, see Appendix, page 1033.)	
No. 70.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1034
(For copy, see Appendix, page 1034.)	
No. 71.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1035
(For copy, see Appendix, page 1035.)	
No. 72.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1036
(For copy, see Appendix, page 1036.)	
No. 73.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1037
(For copy, see Appendix, page 1037.)	
No. 74.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1038
(For copy, see Appendix, page 1038.)	
No. 75.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1039
(For copy, see Appendix, page 1039.)	
No. 76.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1040
(For copy, see Appendix, page 1040.)	
No. 77.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1041
(For copy, see Appendix, page 1041.)	
No. 78.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1042
(For copy, see Appendix, page 1042.)	
No. 79.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1043
(For copy, see Appendix, page 1043.)	
No. 80.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1044
(For copy, see Appendix, page 1044.)	
No. 81.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1045
(For copy, see Appendix, page 1045.)	
No. 82.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1046
(For copy, see Appendix, page 1046.)	
No. 83.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1047
(For copy, see Appendix, page 1047.)	
No. 84.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1048
(For copy, see Appendix, page 1048.)	
No. 85.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1049
(For copy, see Appendix, page 1049.)	
No. 86.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1050
(For copy, see Appendix, page 1050.)	
No. 87.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1051
(For copy, see Appendix, page 1051.)	
No. 88.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1052
(For copy, see Appendix, page 1052.)	
No. 89.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1053
(For copy, see Appendix, page 1053.)	
No. 90.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1054
(For copy, see Appendix, page 1054.)	
No. 91.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1055
(For copy, see Appendix, page 1055.)	
No. 92.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1056
(For copy, see Appendix, page 1056.)	
No. 93.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1057
(For copy, see Appendix, page 1057.)	
No. 94.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1058
(For copy, see Appendix, page 1058.)	
No. 95.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1059
(For copy, see Appendix, page 1059.)	
No. 96.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1060
(For copy, see Appendix, page 1060.)	
No. 97.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1061
(For copy, see Appendix, page 1061.)	
No. 98.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1062
(For copy, see Appendix, page 1062.)	
No. 99.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1063
(For copy, see Appendix, page 1063.)	
No. 100.—Sketch sketch plan showing the conditions of Mount Kambila, by J. O. Brown	1064
(For copy, see Appendix, page 1064.)	

Exhibit No.	Description of items or name subject	Page
No. 60	- Report of the Coroner's inquest on same subject. <i>(See copy, see Appendix, page 986.)</i>	180
No. 61	- Paper by Mr. Donald Macdonald, F.R.S., "On the Cause of the explosion at the Fulham, 1900." <i>(See copy, see Appendix, page 987.)</i>	181
No. 62	- Remonstrance presented to Wellington on July 15, 1900. <i>(See copy, see Appendix, page 988.)</i>	182
No. 63	- Proposed alterations of London Bridge by Mr. A. C. Benson. <i>(See copy, see Appendix, page 989.)</i>	183
No. 64	- Extract from Report of the H. B. Inspector of Mines for Scotland dated July 1900. <i>(See copy, see Appendix, see Appendix, page 990.)</i>	184
No. 65	- Extract from the Royal Commission on Accidents in Mines, 1901. <i>(See copy, see Appendix, page 991.)</i>	185
No. 66	- Extract from Volume XVI of the Edinburgh Institute of Mining Engineers, page 100. <i>(See copy, see Appendix, page 992.)</i>	186
No. 67	- Extract from Volume XVII of the Edinburgh Institute of Mining Engineers, page 110. <i>(See copy, see Appendix, page 993.)</i>	187
No. 68	- Extract from Volume XVIII of the Edinburgh Institute of Mining Engineers, page 118. <i>(See copy, see Appendix, page 994.)</i>	188
No. 69	- Extract from Report of Glasgow Engineers' Committee dated in 1900 and Edinburgh Institute of Mining Engineers, page 120. <i>(See copy, see Appendix, page 995.)</i>	189
No. 70	- Dr. Robertson's Note. <i>(See copy, see Appendix, page 996.)</i>	190
No. 71	- Letter from Secretary James Macdonald to Mr. W. Rogers, Glasgow, March 1898. Reply to above letter. Enclosure from J. Macdonald. <i>(See copy, see Appendix, page 997.)</i>	191
No. 72	- Treasury communication Mr. Rogers' letter of 21st March, 1900, and Mr. Macdonald's statement of 2nd April. <i>(See copy, see Appendix, page 998.)</i>	192
No. 73	- Sketch "A," showing condition of the right girder about six weeks before disaster. <i>(See copy, see Appendix, page 999.)</i>	193
No. 74	- Sketch "B," showing condition of the left girder about three weeks before disaster. <i>(See copy, see Appendix, page 1000.)</i>	194
No. 75	- Sketch "C," showing condition of the two girders and steel skeleton of tower about one week before disaster. <i>(See copy, see Appendix, page 1001.)</i>	195

	Page
Form in New South Wales Collection (orig. 1898; Notes of 1st Exhibit 21 and 22)	103
Yorkshire University, Auckland (c. Exhibit 26)	104
Research report of committee re capital works (Exhibit 85, 86)	11
Form in New York State (Exhibit 89)	105
First Six States (Exhibit 117)	11
Leaf System (Exhibit 98)	11
Form in New York State (Exhibit 99)	11
Form in New York State, Commission of (Exhibit 99)	11

[illegible][illegible]

ROYAL COMMISSION OF INQUIRY RESPECTING THE MOUNT KEMBRA
COLLIERY DISASTER.

REPORT.

To His Excellency SIR HARST HOLDSWORTH RAWSON, Vice-Admiral in the Royal Navy, Knight Commander of the Most Honorable Order of the Bath, Governor of the State of New South Wales and its Dependencies in the Commonwealth of Australia.

MAY IT PLEASE YOUR EXCELLENCY,—

1. We, Charles Edward Robertson Murray, Daniel Alexander Witherspoon Robertson, and David Ritchie, Commissioners appointed on the 6th day of November, 1902, "to make a diligent and full inquiry into the causes of the explosion that recently occurred at the Mount Kembla Colliery . . . whereby many valuable lives were sacrificed, and also to investigate all the surrounding circumstances, in order to ascertain whether blame attaches to any person or persons, and, if so, to report the person or persons to whom, in our opinion, the blame attaches; and, further, to make any recommendations affecting the general management, especially the ventilation, of collieries, and to offer any suggestions which we may deem advisable for the amendment of the law relating to the working of Coal Mines, especially with regard to the treatment of coal-dust, the prevention of the accumulation of dangerous gases, and the use of safety lamps and explosives," have the honor to submit the following report:—

Description and Short History of the Mine and
its Development.

2. The Mount Kembla Colliery, which is the property of the Mount Kembla Coal and Oil Company, Limited, is situated in a southern outlier of the Illawarra or Coast Range, which is here a long spur of the main plateau, approaching the coast in a north-easterly direction, and then running parallel to it to the southward. On the east, off the point where, at Mount Keira, the range turns toward the north, lies the Port of Wollongong; about 7 miles by road, or 5 in a direct line, to the westward of the Port is the Mount Kembla Mine. Mount Kembla itself is a prominent dome-topped hill, 1,752 feet above high-water mark; the mine tunnel enters the mountain at a height of about 500 feet above sea level, under the saddle which joins the hill with the main range. Wollongong is connected with Sydney by the South Coast Railway; the distance by rail from Sydney being 48 miles, the actual distance about 40—southerly. Some 5 miles north-east on the Mount Kembla Mine, in the same range, and working the same seam, is the Bulli Colliery, where an explosion of fire-damp and coal-dust, which caused the death of 31 persons, took place on the 11th of March, 1897.

3. The first year in which the Mines Department have any record of coal being obtained from the mine was 1883, when the output was 21,232 tons; since then the mine has been constantly worked, the output for 1901 (the last year available being) 201,350 tons, which gave employment to 23 persons above-ground,

and

and 888 below. The workings at the time of the disaster extended over an area of about 700 acres, from some 270 acres of which the coal had been entirely removed, either by the Longwall, or by the Pillar-and-Bord, System. The former system of working was extensively adopted a few years ago, on the north-west side of the Main Tunnel; and, to a small extent, later; but the Longwall workings had been standing idle for some time when the disaster occurred, and at that time the Pillar-and-Bord System was the only one in use.

4. The seam worked at Mount Kembla is the highest in the Coal Seam of New South Wales; it is known as the "Main or Balli Seam," and is the only one extensively worked in the Southern District. At a depth of about 32 feet below this is what is called at Mount Kembla "the Four-foot Seam," which has been utilized, by driving, to carry off water from the workings above. The thickness of the Main seam varies from 2 ft. 8 in. up to 8 ft. 6 in.

5. The seam crops out on the Pacific slopes of the Illawarra Range; thus rendering it possible to work Mount Kembla Colliery, as well as all the other mines in the Illawarra District (with the exception of the Metropolitan Colliery), by means of adits or tunnels driven into the seam from the outcrop.

6. The dip of the seam is about 1 in 19, in the direction N. 47° W. for 27 chains along the Main Tunnel, where there crosses an up-throw fault of 10 feet; past this, in the next 44 chains (as far as the Down-throw Fault) mentioned later on, the dip of the seam is about 5 feet; while for some distance beyond the latter fault the seam is level. So far as the workings had penetrated in No. 1 Right District, where the disaster originated, the seam was found to be rising towards the north from a point near the 4th Right.

7. There are at present four tunnels or adits through which it is possible for persons to travel to or from the workings of any part of the mine, and two others, which remain as intakes, but are otherwise disused, though only two of these (the Main Tunnel) is used for the conveyance of coal to the surface. The existence of these Adits or Daylight Openings as media for supplying fresh air to the workings, and as travelling roads to the surface for the workmen, had an important bearing in saving the lives of many of those who were in the colliery at the time of the disaster.

8. There may be said to be two principal main haulage roads, though each of these gives off numerous branches. One is known as the Main Tunnel, and leaves, generally, north-west, passing down, and to the south-westward of the Ventilating Shaft, into what is called the Shaft District. The adit of the Main Tunnel is on the outcrop of the 4-ft. seam; and the tunnel follows the Balli Seam by a cross-measure drift, pretty nearly on a level. The other main haulage road, known as No. 1 Right, branches off the former at a distance of 12 chains from the north, and bears north, ending, at the time of the disaster, in what are called the No. 1 Front and Back Headings, the latter being the northern end of the travelling road which runs, on its east side, parallel to the No. 1 Right Haulage Road. On each side of these two main roads there branch off other subsidiary haulage roads, which are known by numbers; thus, those which branch off the Main Tunnel are the No. 1 Right, No. 1 Left, No. 2 Right, No. 2 Left, No. 3 Right, No. 3 Left, No. 4 Right, No. 4 Left, No. 5 Right, No. 5 Left, No. 6 Right, No. 6 Left, No. 7 Right, and No. 7 Left; and those which branch off the No. 1 Right are called First Right, First Left, Second Right, Second Left, Third Right, Third Left, Fourth Right, Fourth Left, Fifth Right, and Fifth Left (now being driven in the coal). It is around the No. 1 Right Main Level (the Eastern District of the Mine) that the interest of this inquiry centres. On the right hand (southern) side of this road, between the 3rd and 4th Right Hoist Roads, there is an area of 35 acres from which the coal has been extracted and where the roof has been allowed to fall, forming a gulf which is referred to in the evidence either as "the 35-acre Waste" or "the 4th Right Gulf." The last portion of this area to be worked was that near the end of the 4th Right Hoist Road, where, about a fortnight before the disaster, the last pillars of coal were extracted, and the props supporting the roof were withdrawn, with the object of letting it fall. A week before the accident there was a fall of 2½ feet; but there still remained a space of more than 3 feet between the fallen mass and the roof above.

9. The haulage power is supplied by a steam engine installed at the mouth of the Main Tunnel. This engine drives a system of endless ropes at a speed of between 2 and 3 miles an hour. The skips, which are connected to the endless rope by clips, are of the chain-sled type, and do not permit, to any appreciable extent, the escape along the roadways of small coal or dust. Between the working face and the haulage road where the endless rope is laid the skips are loaded by horses. Haulage of coal begins at 7 a. m. and ceases at 5 p. m. The mine working day is divided into two shifts, the front and back shifts. The Front Shift of Miners enters the mine at 7 a. m. and leaves about 5 p. m.; the Back Shift enters at 9 a. m. and leaves about 5 p. m.

10. When the mine was started, a furnace was erected near the outcrop of the upper seam above the Main Tunnel, and the air necessary to ventilate the workings was drawn through the mine by the draught of this furnace. About four years later, a second furnace was built at a daylight opening (shaft) about 500 yards N. E. of the Main Tunnel. This second furnace provided the ventilating power for the mine until the year 1893, when, the workings having become very extensive, the present furnace was brought into use. This furnace is situated at the bottom of an upcast shaft nearly a mile from the surface along the Main Tunnel. The upcast shaft is over 400 feet deep, and the fire-grate area of the furnace is 69 square feet ($11\frac{1}{2} \times 6$). After the construction of this third furnace, both of the others were dismantled, and what were then the return air-ways were converted into intakes and made into travelling roads for men and horses. The current of air induced by the present furnace varied, before the disaster, from 50,000 to 100,000 cubic feet per minute passing into and out of the mine. The Annual Report for 1902 gives the quantity of air passing per minute at 50,000 cubic feet. The air enters the mine by four tunnels, circulates through the workings, and then passes over the furnace to the upcast shaft, by means of which it reaches the surface.

11. The Metropolitan Colliery being taken as an extreme example of a dry and dusty mine, Mount Kembla Colliery appears, by comparison, to be generally damp and free from dust. But there are certain moderately dry areas, at varying extent, especially in the 5th Ingot and 4th Left, off the No. 1 Right, and various dry, alternating with wet, lengths of road, but even in these, where a layer of dust may be found on the roadways, and dust may also be observed hanging on to ribs, timbers, roof, &c., it is of such a consistency that, unless disturbed by some violent motion of the air, it does not rise, nor does it remain suspended long after it has risen. The clothes and skin of a person passing through the mine at Mount Kembla are only blackened by contact with the actual floor, ribs, or roof; while, in the case of the Metropolitan, there is impalpable dust also suspended in the air-currents, which leaves a coating that, while it is readily shaken from any dry garment, is very difficult to remove from the skin, and especially from the eyelids.

12. The roof of the seam varies from a dark arenaceous shale to a grey argillaceous sandstone; but, in some places where the coal seam is thin, the roof consists of a conglomerate.

13. Beneath the seam, for a depth of 5 feet, there is a floor varying, in places, from a dark to a sandy shale, and, under that, sandstone. Where the seam is thinnest, in the workings to the South-west of the Main Tunnel, "Rolls" in the floor are rare or absent, but to the North-east of the Main Tunnel they are fairly numerous; though, as they are not as high as at some of the other collieries in the district, these "Rolls" do not, in this Colliery, interfere with the direction of the roads, or with the shape or size of the pillars.

14. Apart from the "Rolls," and two Basalt Dykes near the outcrop, only two faults of any magnitude are crossed, viz., the Uphrow Fault of 10 feet about 37 chains down the Main Tunnel already referred to (page 6), which, towards the North-east, decreases or is split up by a number of small displacements; and a Thrust Fault about 82 chains from the Tunnel Mouth, which displaces the seam 7 feet down, but reduces to the West and to the East, and in the latter direction has formed a feature full of small coal, the upper face of which shows "Stinkwooden." A water level driven for 25 chains, from the Shaft District across the No. 1 Right District to daylight, in the "Four-foot Seam" (32 feet below the Bulk seam), showed that it was destroyed, to a large extent, by interbedded hard; and a water

sank to the Four-foot Seam at a point 700 yards north-west of the Main Tunnel, proved that the structure there also was destroyed by intrusive heat: but the heat did not, in either of these cases, show in the upper, or Bull Seam; though, at a distance of about a mile north-70°-west from the Tunnel Mouth, an area of several acres of coal has been found to be charred.

Short Account of the Disaster—List of the Victims.

15. At about 2 p.m. on the 31st of July, 1902, while the Manager of the Mine, Mr. W. Rogers, was absent in Wollongong, about 7 miles distant, attending at the Industrial Arbitration Court, which was sitting there hearing a dispute between the Miners and Colliery Proprietors of the Illawarra District, a large volume of flame and smoke was seen to burst from the Main Tunnel, accompanied by a terrific report. Smoke was also blown in dense clouds from the Main Travelling Road near by; and, as depicted to by an eye-witness, when the outward force had expended itself, some of the smoke was blown back into the mine by the back-draught. The force of the blast from the Main Tunnel overtook the engine-house, which was situated directly in line with, and a few yards from, the mouth of the Tunnel; it also slightly displaced the winding-office, which was a little further from the Tunnel Mouth, but not directly in line with it. It was at once apparent to those outside the mine that a serious accident had happened.

16. At this time there were 261 persons in the mine, comprising the Under Manager, a Government Inspector, two Deputies, 208 Miners, 27 Whalers, 15 Shiftmen, &c., and 7 Clippots, but shortly after the flame and smoke had cleared away a number of these managed to find their way out, either singly or in parties, by the aid of the Main Travelling Road, or by other aids. The largest of these parties was led out by Deputy David Evans, by a circuitous route from near the Ventilating Shaft to the Adit near the Manager's house, round the face of the old Longwall workings. Great credit is due to Evans for his coolness and judgment in such alarming circumstances. The roof of the Main Tunnel had collapsed near the Tunnel Mouth, so that escape by this road was cut off.

17. A message was sent by telephone from Mount Kembla to Mr. Rogers at Wollongong, informing him of the disaster, and was communicated by him to the Court of Arbitration, which at once adjourned. He hastened to the mine, and was accompanied and aided in rescue work by the Managers of most of the Illawarra Collieries, and by the Miners' representatives, who, like himself, were gathered at Wollongong to attend the Court. This party from the Arbitration Court was the first to render help to those in the mine, although not actually the first in the mine. Rescue parties were at once organised among the Managers, Miners, and others, who came from all parts of the district to help. The various Physicians of the district, the Matron (Miss Woodward) and Nurses of the Wollongong Hospital, and other willing helpers, were specially on the scene to relieve the sufferings of the injured. It has been estimated that, at the beginning of the rescue operations, there were 160 men still in the mine, and the operations for their relief or the recovery of their bodies were continued through several days.

18. The work of rescue was rendered difficult by the great lengths of road to be traversed, by the heavy falls of roof that had occurred, but, most of all, by the deadly after-damp, which was found to be present almost all through the mine. The force of the explosion disarranged for the time being, of course, the ordinary ventilating currents of the mine. Fortunately, the ventilating furnace (which is situated in the Shaft District) was not in any way damaged (the origin of the force being in the No. 1 Shaft District), and, as soon as the blast had exhausted itself, which was the work of a few seconds, the ventilation-currents resumed, for the most part, to their usual channels. Thus, as each Adit or Daylight Opening was an intake airway, the after-damp, consisting the poisonous gas, carbon-monoxide, which caused the death of almost all those lost through the disaster, was gradually carried in by the air-currents, round the workings, and ultimately to the furnace, to the upper shaft, and thus to the surface. The fresh air followed, and thus enabled rescuers to get well into the mine within an hour after the accident, though they often

often ran great risks by advancing faster than the incoming air, in their self-sacrificing eagerness to save life. Two of the miners, indeed, Mr. B. O. MacCabe and Mr. William McMurragh, after they had assisted in saving the lives of several miners, were asphyxiated by the after-damp, and died before the help which was speedily despatched could reach them.

10. The following is a list of the persons killed or injured in the disaster:—

KILLED (30)

Name	Description	Name	Description
Aiken, Henry, 32	Miner	McCabe, Henry Delane, 45	Mining Engineer
Aiken, John, 42	"	McLennan, Patrick, 33	Miner
Amosby, James, 23	"	McLennan, James, 40	"
Bella, Richard, 51	"	McLennan, Hugh, 34	Wheeler
Bell, Thomas Robinson, 44	"	McLennan, James, 32	Miner
Buckner, Albert William, 21	"	McMurragh, William, 66	Deputy
Buckner, Robert George, 33	"	Mcneil, Henry, 32	Miner
Bender, William, 36	"	Mcneil, William, 28	"
Beck, William Vernon, 48	"	Marion, George, 34	"
Brennan, Michael, 32	Wheeler	Marion, Thomas, 29	"
Bryson, John, 35	Miner	Marion, Walter, 18	"
Carter, Arthur, 35	"	Matheson, Alexander, 13	Copper
Church, Charles, 68	Wheeler	Matheson, Henry, 17	"
Doran, George Henry, 72	Miner	Moss, John, 4	Miner
Doherty, William, 26	Miner	Nick, Peter, 41	"
Doughy, Frank, 45	Deputy	Shapiro, John, 30	"
Dunlop, Frederick Richmond, 19	Wheeler	Shaw, John George, 34	"
Dunning, Joseph Patrick, 54	Miner	Shaw, John, 14	Copper
Dunning, Thomas Reid, 46	"	Shaw, William, 20	Under Manager
Egan, Edward, 12	"	Shaw, William, 21	Wheeler
Egan, Daniel, 33	"	Shaw, William, 24	"
Egan, Michael, 38	"	Shaw, William J., 36	Miner
Egan, Thomas, 22	"	Shaw, James, 28	Wheeler
Foley, William, 48	"	Shaw, James, senior, 62	Miner
Gallagher, Daniel, 30	"	Shaw, John, 34	"
Gallagher, Edward, 28	"	Shaw, Thomas, 23	"
Gallagher, Michael, 45	"	Shaw, Henry, 36	"
Gill, Edward, 32	"	Shaw, James Henry, 39	"
Graham, Stephen, 37	"	Shaw, Edward, 43	"
Hartley, George Oliver, 33	"	Shaw, George, 30	"
Hend, James, 37	"	Shaw, John, 33	"
Hendry, Daniel, 31	"	Scott, David, 49	"
Hewitt, Alfred, 37	Shifterman	Shaw, William, 14	Copper
Hewitt, William, 31	Miner	Shaw, Albert, 18	"
Hudson, John, 62	"	Shaw, Frederick, 15	"
Hunt, Thomas, 27	"	Shaw, Charles, 17	"
Hughes, Thomas, 32	Father	Shaw, Kenneth, 17	Wheeler
Hume, Raymond, 24	Miner	Shaw, William, 25	Miner
Hunt, Wm (known as Alfie), 45	"	Shaw, Thomas, 33	"
Hunt, Percy Alexander, 42	"	Shaw, Richard, 26	"
Hunt, Percy Spencer, 18	"	Shaw, Thomas, 30	"
James, Henry, 31	"	Walker, John, 14	"
James, John Henry, 32	"	Walker, Richard, 42	Copper
J. Frey, John, 43	"	Walker, William, 34	Miner
Jones, Robert, 31	"	Williams, Joseph, 24	"
Kendrick, Thomas, 49	"	Woodford, Charles, 34	"
Lane, Richard, 44	"	Youngman, George, 38	"
Lane, Richard Charles, 17	"		

INJURED (14)

Name	Description	Name	Description
Watson, George	Under Manager	Richards, Stanley	Copper
Clarke, John	In charge of fan and mouth	Pearce, George	Miner
McDonald, George W.	Miner	Pearce, Frederick	"
Brashley, James	"	Walker, George	"
Smith, Thomas	"	Gilligan, Arthur	Under Manager
Bell, Thomas Lewis	Inspector of Col. Mines	Scott, Percy	Copper
		Parry, Patrick	Engine-driver
		Pearce, Isaac	Miner

The Coroner's Inquest and the Finding of the Coroner's Jury.

20. On the 1st of August, 1902, the day after the disaster occurred, Mr. Charles Coffey Russell, solicitor, the Coroner at Wollongong, with the assistance of a Jury of twelve, commenced a Coroner's Inquiry into the cause of the death of William Meesant, William Nelson, and Henry Meesant, whose bodies were among the first to be brought to the surface by the rescue parties. The inquest lasted until the 12th of September, 1902, sittings being held on twenty-two days.

21. At this inquiry Senior-Sergeant Banks, the officer in charge of the Wollongong Police, brought forward all the evidence, the miners employed at the Mount Kembla Colliery, and the relatives of deceased miners, were represented by Mr. A. A. Lynght, solicitor, of Wollongong, and by Mr. David Ritchie, the General Secretary of the Illawarra Miners' Association; the Mount Kembla Coal and Oil Company were represented by Mr. C. G. Wade, Barrister-at-Law, instructed by Messrs. Cartha and Barry, solicitors; and the Mines Department was represented by Mr. Duane Smith, Barrister-at-Law, instructed by Mr. H. D. Wood, B.A., LL.B., of the Crown Solicitor's Office, assisted by Mr. A. A. Atkinson, Chief Inspector of Coal Mines.

22. The following is a list of the witnesses (twenty-eight in all) who were examined at the inquest.—

Name.	Profession or Occupation.	Page of Inquest Notes.
Atkinson, A. A.	Chief Inspector of Coal Mines	25, 36, 62
Banks, H. S.	Senior-Sergeant of Police, Wollongong	48
Bushnell, Wm.	Miner	5, 6
Evans, David	Deputy, Mount Kembla Colliery	28, 32
Frost, Matthew	Overman of shafts, Mount Kembla Colliery	9, 10
Frost, John	Overman	43
Hopkins, Wm.	Miner	23
Jones, W. E.	Mining surveyor	41
Kerr, Dr. W. B.	Medical practitioner	59
Leathes, John	Miner	4
Lee, Dr. T. W.	Medical practitioner	55
Mearns, Theo.	Miner	1
Mearns, Mrs. A. F.	Miner	2
Nelson, Edward	Miner	15, 16, 17, 18, 37
Morris, John	Miner	47
Moss, Wm.	Lecturer on Mining and Geology, Technical School, New South Wales	42, 43
Mrs. J.	Miner	5
Nelson, Mrs. A.	Miner	59
Nash, Dr. J. H.	Overman of shafts, Mount Kembla Colliery	23
Paul, Dr. H. E.	Miner	21, 52
Quinn, W.	Manager, Mount Kembla Colliery	1, 35, 36, 38, 41, 42
Rogers, Wm.	Miner	46
Smith, D.	Miner	53
Hastings, George	Miner	52
Stiffell, Adam	Miner	54
Stiffell, Edward	Miner	53, 43
Wade, Mr. C. G.	Miner	40
Wardlaw, S. H.	Miner	40

23. The Coroner's Jury, after hearing the evidence of these witnesses and visiting the mine, brought in the following verdict:—

"The deceased, William Meesant, Henry Meesant, and William Nelson, died at Mount Kembla Mine, in the County of Camden, and State of New South Wales, on the 21st day of July last, FROM CARBON-MONOXIDE POISONING PRODUCED BY AN EXPLOSION OF FIRE-DAMP, IGNITED BY THE NAKED LIGHTS IN USE IN THE MINE, AND AGGRAVATED BY A SERIES OF COAL-DEBT EXPLOSIONS, STARTING AT A POINT IN OR ABOUT THE NUMBER ONE MAIN LEVEL RAIL HEADINGS, AND EXTENDING IN A WESTERLY DIRECTION TO THE SMALL COAL, MARKED H PITCHES ON THE MINE PLAN."

The Appointment of this Commission—Course Adopted at the Commission's Inquiry—Evidence Taken—Theories Advanced to Account for Disaster.

24. On the 6th of November, 1902, the Governor-in-Council appointed as a Commission to, primarily, inquire into the cause of the explosion, and to report on various other questions raised thereby, as recited in the first paragraph of this report. From various causes, which need not be further referred to here, the Commission was unable to enter upon its duties until the 5th of December, when a preliminary meeting was held, at which the notification of the appointment of Mr. J. Gerliek as Secretary and Principal shorthand Writer to the Commission was received, the course of procedure to be adopted was determined, and it was resolved to visit the Colliery on the 9th and 10th of December. As, however, one of the questions which had led to the former delay again came under the consideration of the Government, the further action of the Commission was deferred until the matter was settled, and the Commission did not visit the mine until the 16th and 17th of December. The Christmas Holidays were then close at hand; and it was considered inadvisable to begin the taking of evidence until after they had passed, in view of the probable absence of important witnesses and Counsel from Wollongong, where the Inquiry was to be opened. The intervening time was therefore spent in reading and discussing the evidence taken at the Coroner's Inquest, which the Commission decided to accept as evidence at their Inquiry, in order to avoid the expense and delay involved in re-taking the testimony. By this decision 28 days were, in effect, saved. The Commission began the examination of witnesses at Wollongong on the 6th of January, 1903, adjourned to Sydney on the 10th of January, and concluded the taking of evidence in Sydney on the 20th of March. They again visited the Colliery on the 24th, examined one witness there, made a number of tests for fire-damp with a hydrogen lamp (the most reliable of the non-sensitive instruments since has, so far, devised for the purpose), and carefully inspected certain portions of the mine to which their attention had been directed by the witnesses. The next day, the 25th of March, they visited Helensburgh, in order to be able to compare the conditions at Mount Kembla Colliery, a mine which was, up to the time of the accident, reputed to be safe in relation to dust, and to the issue of fire-damp, with those at the Metropolitan Colliery, a mine acknowledged to be exceptionally fiery and dusty. At Helensburgh a number of very instructive tests were made in the presence of the Commission as to the explosibility of Mount Kembla and Metropolitan coal-dust, and the safety of "permitted explosives" as compared with gunpowder, particulars of which will be found in the minutes of evidence (para. 39560-39700 Cons.). The remainder of the sittings of the Commission were devoted to the consideration of the evidence and the preparation of this Report.

25. The Commission having decided to begin taking evidence at Wollongong on the 6th of January, the following advertisement inviting persons interested to appear was inserted in each of the Sydney daily newspapers, and in the papers published at Wollongong, Newcastle, and Lithgow:—

ROYAL COMMISSION OF INQUIRY RESPECTING THE MOUNT KEMBLA COLLIERY DISASTER.

Notice is hereby given to all concerned that the above Commission will commence its sittings for the taking of evidence on Tuesday, the 6th January, 1903, at 11.30 a.m., in the Court-house, Wollongong. The scope of the Commission's evidence will only be the nature of the explosion which occurred at Mount Kembla Coal Mine on 1st July last, but also (1) the General Management of Collieries (2) Ventilation, (3) the Treatment of Coal Dust, (4) the Prevention of the Accumulation of Dangerous Gases, (5) the Use of Safety Lamps, and (6) the Use of Explosives.

All persons having a knowledge of these matters are invited to attend the meeting of the Commission, or to communicate with the Secretary.

For the convenience of witnesses the Commission will sit at Wollongong and Sydney. The Commission will also call other places for the purpose of taking evidence, if necessary.

2nd December, 1902, 7th Floor, at, Sydney.

By Order of the Commission,
J. GERLICK, Secretary.

In response to this advertisement the Commission received a few letters from persons in different parts of the State who were desirous of giving evidence; these persons were then asked to state generally the nature of the evidence they could give.

give, and their experience, and their replies enabled the Commission to decide in which cases it would probably be of service to the Inquiry to call the witnesses to give evidence. The Commission regret that none of the Colliery Managers, or proprietors, whose interests are vitally affected by the questions upon which the Commission were directed to report, accepted this invitation, or the opportunity of appearing which the President held out at the opening of the Court.

25. The first sittings for the taking of evidence were held at the Wollongong Court-house, which had been kindly lent for the purpose by the Justice Department at considerable inconvenience to their local office, the Police Magistrate, who courteously did all in his power to assist the Commission in their duties. After having heard the evidence of all the witnesses then available at Wollongong, the Commission adjourned to Sydney, where the Land Appeal Court was, for a time, placed at their disposal, then, in succession, a room at the Treasury, the No. 3 Jury Court, and, lastly, the No. 2 District Court.

27. On the opening of the Court at Wollongong, Mr. A. A. Lynght, solicitor, appeared on behalf of (a) the representatives of deceased miners, wheelers, &c. (victims of the disaster), (b) the employees of the Mount Kembla Colliery (miners, wheelers, &c.), and (c) the Illawarra Colliery Employers' Association; Mr. C. G. Wade, Barrister-at-Law, instructed by Messrs. Curtis and Barry, solicitors, appeared on behalf of the Mount Kembla Coal and Oil Company, Limited; and Mr. Bruce Smith, Barrister-at-Law, instructed by Mr. H. B. Wood, of the Crown Solicitor's Office, appeared to represent the State, through the Mines Department—Mr. A. A. Atkinson, Chief Inspector of Coal Mines, being present by leave of the Court to assist Mr. Bruce Smith, though to be called, later, as a witness. The President announced that the application of any other person or body wishing to be heard or represented on the Inquiry would at any time be entertained.

28. The parties were then informed that the evidence taken at the Coroner's Inquest would be accepted as if it had been given before the Commission, but that, if any party desired it, any witness who had given evidence at that Court might be recalled for the purpose of further examination or cross-examination.

29. The taking of evidence was then proceeded with, and occupied forty-one days, the following being a list of the witnesses examined:—

LIST OF WITNESSES CALLED TO GIVE EVIDENCE BEFORE THE COMMISSION.

Date	Name of Witness	Profession or Trade	Called by—	Paragrap.
1903				
4 Jan	Mayes, Thomas Richard	Miner	Mr Lynght	33-3811
5	Mayes, Edwin	"	"	387-379
7	Mayes, James	"	"	580-1807
7	O'Connell, Edward	Coal miner	"	1386-1473
7	Quinn, Michael	Miner	"	1273-1719
8	Smith, Charles	"	"	1731-2474
8	McDonald, Frank	"	"	2475-2626
14	Reeks, Alexander	Chief weighman at Colliery	"	4344-4393
15	Swaney, John	Miner	"	4413-4460
15	Sells, John	"	"	4462-5218
19	Marshall, William	"	"	5220-5453
20	Scott, Robert	"	"	5454-6118
21	"	"	"	6119-6326
21	Gleeson, Patrick	"	"	6328-6338
21	Gleeson, Alfred	"	"	6339-6345
21	Hickey, William	"	"	6346-7100
22	McDonald, John	"	"	7101-7519
22	Hughes, Robert	"	"	7520-7596
22	Rayner, John	"	"	7597-8176
22	Island, Charles	"	"	8177-9431
3 Feb	Reeks, John	Chief weighman at Colliery	"	9432-9564
10	Reeks, William	"	"	9565-9587
10	"	"	"	1718-1904
10	Gray, Michael	"	"	1905-1970
10	Peterson, John	"	"	1971-1980
19 Mar	Reveries, Patrick James	Chief weighman at Mt. Kembla Colliery	"	1981-1993

Date.	Name of Witness.	Profession or Trade.	Called by—	Paragraphs.
1883				
14 Mar	Stafford, William	Excavator	Mr. Knight	29611-32000
16 "	Evans, Harry	"	"	30995-32023
27 Jan	Morrison, John	Deputy at Mt. Kenilbe Colliery	Mr. Wade	32023-32111
2 Feb	"	"	"	11134-11234
2 "	"	"	"	11735-13045
18 Feb	Livingstone, William	Miner	"	9332-9494
28 "	Mair, Thomas	"	"	30821-30895
29 "	Johnson, Thomas	"	"	10684-11190
5 Feb	Duggan, Charles	Deputy at Mt. Kenilbe Colliery	"	12358-12710
23 "	Sellers, Alfred Ernest Oswald	Manager, South Walls and Bel house Collieries	"	16570-18553
31 "	"	"	"	18527-20484
28 "	"	"	"	21245-23540
28 "	McGonigle, Daniel	Manager of West Walland Colliery	"	20411-20867
28 Mar	"	"	"	19527-19812
26 Feb	Wardlaw, Alexander Henry	Mining Surveyor at Mt. Kenilbe Colliery	"	19851-21347
2 Mar	Ray, William	Clark and Wagoner, Mt. Kenilbe Colliery	"	10851-11988
3 "	Barr, James	Manager, Co-operative Colliery, Newcastle	"	23467-23971
3 "	"	"	"	25012-25918
3 "	Lathe, George	Manager, Standard Menders Colliery, West Auckland	"	22517-26759
4 "	Joan, Jacob Cyrus	Manager Mt. Kenilbe Colliery	"	25805-27548
4 "	Roberts, Dr. James	Mining Engineer	"	27463-28704
5 "	Robert, Miller	"	"	17705-24723
9 "	"	"	"	24732-24821
10 "	"	"	"	24855-25226
10 "	Rogers, William	Manager, Mt. Kenilbe Colliery	" (by direction of the Court)	25484-26463
11 "	"	"	"	27058-28272
16 "	"	"	"	28441-28746
4 Feb	Atkinson, Alfred Ashley	Chief Inspector of Coal Mines, Department of Mines, N. S. W.	Mr. Bruce Smith	32248-33295
5 "	"	"	"	33296-33945
6 "	"	"	"	33946-34750
10 "	"	"	"	34751-35004
11 "	"	"	"	35012-35825
12 "	"	"	"	35826-36183
13 "	"	"	"	36184-36650
14 "	"	"	"	37713-42754
17 Mar	"	"	"	20001-26463
20 "	"	"	"	26475-32468
20 Jan	Hasson, Alfred	Wheeler	The Commission	7806-7774
28 "	John, Henry	Assistant Under manager at Mt. Kenilbe Colliery	"	5689-10778
28 "	McDonald, Alexander	Deputy at Mt. Kenilbe Colliery	"	10593-10664
29 "	"	"	"	10665-10635
12 Feb	Cashbag, Richard Thad	Mining Surveyor, Mines Department, Sydney	"	16166-16218
11 Mar	Mingay, John P. H.	Assistant and Assayer to Department of Mines	"	26376-26440
18 "	"	"	"	35506-36654
18 "	"	"	"	39145-39128
17 "	Bonick, William	Inspector of Collieries	"	36295-37124
17 "	"	"	"	37713-38465
18 "	Goodwin, John Dickinson	Mining Engineer for Borough of Ashfield	"	38396-39194
24 "	Parson, Thomas	Mining Engineer	"	23151-28528
24 "	Widdie, Daniel	Under manager at Mt. Kenilbe Colliery	"	26796
25 Jan	Stinch, James	Miner	" (at the request of the witness)	20742-20753
25 "	"	"	"	20755-2451
25 "	Step, Jonathan	Lecturer on Mining, Geology, and Mine Surveying	"	3472-3496
24 "	"	"	"	2473-4143
27 "	Wynn, John	Customiser	"	8078-8081
27 "	"	"	"	9813-8211
27 Feb	Bailey, John William	Miner	"	16811-17495
27 "	Cadogan, Thomas	"	"	17410-17713
27 Mar	Jeffries, Joshua	Manager of the Metropolitan Colliery	"	27866-27712
27 "	"	"	"	28465-28728

30. In the conduct of the Inquiry it was arranged that Mr. Lyngt should call his evidence first, that Mr. Bruce Smith should follow, then Mr. Wade, and lastly the Commission; with the understanding that, if necessary, any witnesses could be called out of the prescribed order by any party, and that all fair latitude and elasticity with regard to calling witnesses in contradiction, or in reply, would be allowed.

31. Mr. Lyngt opened his case by submitting to the Commission a number of Recommendations made by the Ilwaco Colliery Employees' Association; and, at a later stage, he supplemented these Recommendations by others from the Mining Employees of Newcastle and Lithgow. He then proceeded to call officials of the various Associations, and working miners, to give evidence in support of these Recommendations. With respect to the disaster itself Mr. Lyngt called evidence of miners; some of whom supported the theory endorsed by the Coroner's Jury, viz., that it was caused by the ignition and explosion of fire-damp at the face of No. 1 Right Rock Heading; while others advanced theories fixing the seat of the disaster variously at about Aitken's Working Place, Martin's Working Place, and elsewhere; but these theories were not supported by any evidence of weight. Mr. Lyngt also endeavored to prove that the officers of the mine had been negligent in the performance of their duties in that the standing places (places in which no work was being done) at the face (the extreme Northern end) of the No. 1 Right Rock and Front Headings had not been examined for fire-damp, and that, if the accident was caused by the ignition of gas in the Rock Heading, this neglect directly contributed to the disaster. At a later stage, when the weight of the evidence pointed to the Junction of the 4th Right Rope Road with No. 1 Right Main Level as the seat of the explosion, Mr. Lyngt directed his efforts to prove that the Management contributed to the accident by their neglect to make weekly examinations at the edge of the 32-acre goaf on the 4th Right Rope Road as prescribed by Special Rule 10.

32. Mr. Bruce Smith called only Mr. Atkinson, Chief Inspector of Coal Mines, who first expressed his opinion upon the recommendations of the miners, and then proceeded to detail his observations, made on a number of inspections, as to the evidences of the force of the explosion, and the directions in which the force operated, as deduced from these evidences. Mr. Atkinson produced a plan on which were marked (a) the places where the various men in the mine at the time of the disaster were working, (b) the places where victims were found by the rescue parties, (c) the ventilating currents, and (d) the directions of forces, shown by arrows. He also produced a plan and two sections, prepared under his direction, of that part of the No. 1 Right Main Level Rope Road between the 3rd Left Rope Road and the 6th Cut through from the face. On these plans, Mr. Cawthra, Chief Mining Surveyor, and his assistants, who had spent four days in the mine gathering the information, had depicted graphically the general indications of the force of the explosion—contained alphas, bodies of men and horses, rolls torn up, stoppings blown out of rat-throughs, telephone wires broken and twisted, coal (flown from skips, &c., &c.). At the Coroner's Inquest, Mr. Atkinson had been divided in opinion between the No. 1 Rock Heading and the 4th Right Junction as the place where the disaster originated. He now stated, as the result of further examinations of the mine and a careful consideration of the plans, that he believed the accident to have occurred through the ignition, by a naked light (Theodore Morrison's), at the 4th Left Junction, of a body of gas which issued from the 4th Right Head; and that this body of gas had been driven from the higher portions of the 32-acre goaf by a fall of the roof there.

33. Mr. Wade called the evidence, on behalf of the Vincent Kemble Company, of a number of the mine officials and Managers of other Collieries, who gave evidence in opposition to the theory that the disaster was caused by the ignition and explosion of gas, and advanced various theories by which they considered the disaster could be accounted for without such an explosion.

34. Mr. Sellers (Manager, South Bath and Bellambi Collieries) advanced the theory that assuming that 41 yards square of the roof of the 32-acre goaf at the end of the 4th Right fell in half a second, the depth of fall being 4 feet 6 inches, the air beneath would be driven out through the 4th Right (an opening

12 feet x 6 feet) at a velocity of about 700 miles per hour, even after allowance was made for the escape of 50 per cent. of the air into the surrounding gulf; that thus the air would be so compressed that, at the opening to the 4th Right, there would be a pressure of 85 lbs. per square inch, which would give an increase of temperature of 228 degrees, which, added to the temperature of the air at starting, 70 degrees (the assumed temperature of the strata), would raise the temperature of the blast to 298 degrees, and that this temperature would be more than sufficient to cause the ignition, without gas or flame, of the coal-dust which would be sucked by the fall and the blast, as Professor Bowen had—it was contended—shown, by his experiments, that coal-dust would ignite at a temperature of 251 degrees.

33. Mr. McGowan (Manager of West Wallend Colliery) was of opinion that a fall of roof in the 33-acre gulf drove out a blast of wind, which, separating at the junction of the 4th Right with the No. 1 Main Level, travelled outbye and inbye, and caused all the damage found in the No. 1 Level. The portion of the blast which went inbye was compressed against the face, and became heated by the compression; thus causing the partial caking of dust noticed there, and the slaying of the men upon whom signs of heat were found.

34. Mr. Barr (Manager Co-operative Colliery, Newcastle) submitted the theory that the air forced out of the 4th Right divided when it reached the Main Level, one portion going outbye and the other inbye; the latter column of air proceeded at such a terrific pace that it overturned skips, blew tubs off their wheels, and wheels off their axles; and, as the skips were blown along the road when by which they were attached to the haulage rope were dragged along the rope at such a rate that the friction produced fire like flashes of electricity. The air, on reaching the face, was heated by compression to such an extent that, though no gas was present, an explosion of air, "overgun," took place when it rebounded, and there was a little flame. This theory the Commission at once rejected as absurd.

35. Mr. J. C. Jones (Manager, Mount Keith Colliery) thought the first cause of the accident was a fall in the 4th Right Goad, which, he reckoned, would force out the air at the rate of 743 miles per hour (counting a quarter of an acre fell 5 feet in 1 second). This blast of air, he thought, went straight outbye towards the Main Tunnel Mouth, causing the destruction found on the way. He did not think it would go all the way, though there was no doubt that some force had gone right to the Tunnel Mouth; but what that additional force was he would not like to say. Probably that would be caused by a dust explosion, though how the dust was ignited he could not explain. The coal-dust raised by the blast would be "pretty well heated" by the compression, and would be ignited in some way, either by the rolls or skip wheels striking fire or by an electric spark from the telephone wires. He had seen a statement in Mr. Stiles' evidence before the 1892 (Eng.) Royal Commission on Colliery Explosions that coal-dust began to burn at a temperature of 219 degrees, so that gas may have been given off from the dust raised by the wind-blast, and ignited by a spark. Later, in cross-examination, Mr. Jones said he thought that gas and coal-dust issued from the 4th Right a few seconds after the blast of air; also that the vacuum which he thought would be caused by the blast allowed the escape of condensed gas from the main inbye, and that this gas might have been ignited at some naked light.

36. Dr. Robertson (Consulting Engineer to the Mount Keith Coal Company) stated that he had had some plans prepared by Mr. Warton, the Surveyor at the Mine, showing the indications and directions of forces (1) in the No. 1 Right between the 4th Right and the 5th Right, (2) in the No. 1 Right between the 2nd and 4th Right, and (3) in the No. 1 Right from and back headings from the 5th Right to the face, together with the workings to the left, or westward, of the No. 1 Right as far as Amesley and James' Pillars (No. 55 Working place on plan of Mine). He did not think the evidences of force he saw in the Mine could be accounted for by the theory of an explosion of gas; but it appeared to him that all the appearances could be reconciled by the theory that a great wind-blast was forced out by a fall in the 33-acre goaf at the end of the 4th Right; and that the damage was done by compression throughout the mine without any explosion. In fact, there were positively no evidences of flame or heat. In cross-examination he admitted that

could,

carbon monoxide played a part in the after effects of the wind-blast; and carbon-monoxide could only be produced by incomplete combustion of coal, or, rather, in this case, of coal-dust. The heat produced by the compression of the air was, he believed, so great that, without flame, it caused the coal-dust to ignite. He thought the velocity of the air out of the 4th Right would be 360 miles per hour. This calculation was made from data partially assumed—that an area of roof 44 yards square fell in a block in a little under half a second from a height of 6 feet; and that 60 per cent. of the air beneath the falling roof escaped into the surrounding gulf or into the space from which the fall came. The damage done at a great distance from the 4th Right, as, *inter alia*, in the scorching of skips, &c., at Price's Flat (at the extreme west end of the 4th Left Rope Road, 32 chains away by the road), could not have been caused by the direct force of the wind-blast; but he considered that would be caused by the pressure produced by the fall, which would operate at long distances though there would be no direct forcible motion of the air. He did not see any smoke in the mine himself; but the smoke of which witnesses had spoken would be caused by the distribution of the dust. He could not account for the heat observed by several witnesses in the mine shortly after the disaster except by the disturbance of the ventilation.

38. Mr. Rogers (Manager of Mount Kembla Colliery) said the only theory he had as to the cause of the disaster was that a fall in the 4th Right Goad drove out a big blast of air. He thought coal-dust played a part in the disaster; it might have been ignited by the compression of the air; but he had seen no indication of flames in the mine.

39. Mr. W. Humble (Inspector of Collieries), called by the Commission, stated that he had made several examinations of the mine within a few days after the disaster; he supported Mr. Atkinson's theory that a fall in the 4th Right Goad drove out gas which had accumulated there, and that the ignition of this gas and of coal-dust caused the disaster; but he differed from Mr. Atkinson in his opinion as to where the gas was ignited. He thought it was probable that the gas ignited at a naked light somewhere on the No. 1 Travelling Road (parallel with the No. 1 Main Level), and then the light flashed into the main body of the gas, causing the explosion proper at about the junction of the 4th Right with the Main Level. In his opinion the light at which the gas was ignited was that of T. Farrell (whose body was found in the Travelling Road some distance—23 chains south—from the 4th Right), and that the ignition took place as Farrell passed down the Travelling Road across the 4th Right.

40. Mr. T. Patton (Mining Engineer), called by the Commission, stated that he had inspected the mine after the accident, and had heard the evidence given at the inquiry as to the "wind-blast theory"; but his opinion was that there was a fall in the 4th Right Goad, which forced out gas onto the nearest lights, and an explosion followed, which, igniting the coal dust, would exhibit the evidences of flame seen in the mine.

41. After the evidence of the experts called by Mr. Wade had been heard, Mr. Atkinson was re-examined, and stated that he could not agree with the theory that the disaster was caused by a wind-blast without the ignition of gas, and that he saw no reason to alter the opinion he had previously expressed.

Consideration of the Evidence as to Where the Disaster Originated and its Cause.

42. In their efforts to ascertain the cause of the accident the Commission were confronted with two important questions; 1st—At what part of the mine did the force originate which caused the disaster? 2nd—What was the nature of that force?

43. The Commission have had little difficulty in arriving at a conclusion on the first question, for the evidence of the various witnesses was almost unanimous (and that of the experts quite unanimous) in indicating the point where the 4th Right Rope Road joins the No. 1 Right Main Level as about the centre from which

the principal force of the disaster was exerted. The plans and sections prepared by Messrs. Cambage and Warburton, showing the nature of the damage done in the No. 1 Right Main Level and other roads, together with the evidence of the witnesses, prove that almost all the damage between the 4th Right and the Tunnel Mouth was caused by a force exerted outwards (i. e., towards the Tunnel Mouth), and that the damage between the 4th Right and the 1th Right was caused by a force exerted in the opposite direction, inbye. It is true that there are a few apparent evidences of force having been exerted in each case in directions which clash with this conclusion, but this fact is capable of explanation, and really supports the conclusion at which the Commission have arrived as to the nature of the accident, as will be shown later.

44. In seeking an answer to the second question, viz., what was the nature of the force which radiated from the 4th Right, the Commission have had a somewhat more difficult task. Mr. Lyngby's witnesses contended that the disaster was caused by an explosion of fire-damp (though they did not all place its centre at the 4th Right); Mr. Atkinson, the Chief Inspector of Coal Mines, called by Mr. Bruce Smith, believed that it was an explosion of fire-damp; but Mr. Wade's witnesses were unanimously of opinion that the sole initial cause was a terrific wind-blast, travelling at the rate of about 700 miles per hour; though some of them thought that, before the force of the blast diminished—or it necessarily would quickly diminish—its work was taken up and carried on by explosions of coal-dust, and (as put by Mr. J. C. Jones) of fire-damp also.

45. Though they have given the matter careful consideration, the Commission cannot see any justification for accepting what may be called the "wind-blast" theory. This theory depends on too many assumptions, some of which are quite unreasonable. It was assumed that an area of roof 44 yards square fell to a body from a height of 4 feet 6 inches above the floor; that the time of falling was about half a second (the time at which it would fall in vacuum), and that it would drive out half of the air beneath it through an opening 13 feet 3 inches. Allowance does not appear to have been made for the fact that the time of fall would be prolonged by the resistance of the air beneath, which would be enormous if the air were to be—as hypothesized—compressed to such an extent as to raise its pressure from—say—14 to 35 lbs. per square inch; in fact, the calculation could only be correct if the height of the falling mass were so great that the pressure on the air below, due to its fall, (assumed for the sake of argument to be rightly calculated as a resistance varying as half a second from 34 to 85 lbs. per square inch) were infinitesimal in comparison with the weight of rock the motion of which such pressure tended to retard; the weight would have to be an infinite multiple of the resistance in order to reduce its retarding effect to zero; and yet a resistance of only 28 lbs. per square inch would balance a mass of rock of at least 24½ feet in height. This aspect of the case will be found touched upon later, when the question of gas, as a factor in the catastrophe, is considered. The hypothesis, even if it be possible, is certainly grossly improbable—as improbable, indeed, that, even if there appeared no other possible explanation, the Commission would have to conclude that the catastrophe was not reasonably explicable.

46. The Commission, having come to this conclusion, proceeded to examine the other theories brought forward, in each of which it was assumed that the accident initiated in the ignition of fire-damp. Here the Commission were brought face to face with a very important question, viz., Is fire-damp given off in Mount Kembla Mine? The consensus of opinion, both of officials and miners, before the accident, appears to have been that Mount Kembla Colliery was free from fire-damp. Apparently the last opinion on which the discovery of fire-damp in the mine was officially reported was in 1901 (when a man named Gallagher was severely burnt through the ignition of a quantity of gas which entered his working place from a cavity—an old working place—into which his pick had penetrated), so that there was evidently some reason for the feeling of entire security prevailing both management and men. The mere fact, however, that gas was not reported does not necessarily prove that it was not there; for the ventilation of the mine, since the construction of the new furnace and upcast shaft, has been so good that small quantities of gas, even though they may

have been given off constantly, would be at once diluted, rendered harmless, and carried off to the outer air; and such small quantities could, under normal conditions, hardly be detected with the safety-lamp ordinarily used in testing, though they might possibly be found by means of the hydrometer lamp. The only chance of such gas being present in dangerous quantities would be, possibly, in an abandoned working not properly swept by the ventilating current, or in a goaf (or worked out portion of the mine) the roof of which had fallen, and so prevented the free circulation of air. In the latter case it would be very unlikely that the presence of fire-damp could be discovered; for it would be, in most cases, impossible for any person to cross the fallen strata a sufficient distance to reach the higher parts of the disaster, to which the gas would naturally ascend, its specific gravity being considerably less than that of air.

47. Between the date of the burning of Gallagher (1891) and the date of the disaster, the only evidence of the occurrence of gas in the mine of which there is any record is found in the proceedings of the Royal Commission of 1893 on the Coal Mines Regulation Bill. Mr. Ronaldson (then Manager of Mount Kembla Mine), on the 1st of October, 1893, gave the following evidence:—

- 2321 Q Does the mine give off any fire-damp? A Very rarely, in cracks.
 2323 Q In does give off a little? A Yes, from fissures, rarely.
 2326 Q In what way does it off or does not give it off? A It gives it off rarely.
 2327 Q In what section of the mine is that? A All sections.

48. After the disaster occurred, however, quite a number of persons who either were or had been working in the mine came forward and gave evidence of having seen gas ignited at their lights (which were naked) when at work. The evidence of these witnesses is summarized below:—

E. Mourant, Miner, (p. 3, Inquest) stated that he had, during the 31 months that he had worked in the mine, heard "blowers of gas" (i.e., gas blowing as it issued from rock); but he had never been able to locate them with his lamp. He did not report the fact to anybody (though bound by law to do so). His only experience had been in two bands in the shaft district.

W. Broadhead, Miner, (pp. 6 and 8, Inquest) said he had found gas in the mine many times when he had fired shots, both in No. 4 District and the Shaft District. He did not report it, as the quantity was not sufficient to be worth talking about. He knew he ought to report it.

The following day Broadhead was again questioned regarding this; and then he said he did report the finding of gas, "when it was severe," to David Evans, one of the Deputies; but he never saw more than the air would put out (i.e., dilute to such an extent as to render it harmless). He also stated that he had reported gas to Deputy Dungey (who was one of the victims of the disaster) the quarter before last (five or six months before the disaster); that, at that time, William Hopkins was his mate; and that, about nine months before the disaster, he had reported the occurrence of gas to Mr. Nelson, Under Manager (killed in the disaster). When he reported the gas to Evans, he said, Evans wrote on a sheet, with chalk, "Piss! do not go past this; put your light out; take your coat and go in and let the place well out." He had also reported to Mr. Rogers that a certain place was "very gassed." When he saw gas after firing shots, the flash was red. Later, in cross-examination, he said he never went to Mr. Rogers himself and complained about the presence of gas; that Mr. Nelson was a shrewd and careful man, who always gave special attention to the safety of the miners; that the miners could trust Dungey to look after their interests; and that Mr. Rogers is a man who shows every care for the safety of the miners.

William Hopkins, Miner, stated (p. 35, Inquest) that he never saw a sign of gas while working in the Shaft District with Broadhead; nor did he ever hear Broadhead make a complaint to Dungey, or any other foreman, about gas being in the mine.

David

David Evans, Deputy of Mount Kembla, stated (p. 31 Inquest) that Broadhead did not report the finding of gas to him; and he did not write on a "shovel" as stated by Broadhead. He was sure there had not been a report of gas for the past five years; but he had some mines gas 14, 15, or 18 years ago, when the old furnace was at work; and had found some in several places before the five years, when he found the gas, he stated, he reported it to Mr. Rogers, who was then Under Manager; and also reported it in a book.

Mr. W. Rogers, the Manager of the Mine, stated (pp. 33, 36, and 40, Inquest) that he did not know that gas was constantly exuding from the coal in Kembla, even in small quantities, though he knew gas was found in the mine years ago; but he knew there was no gas during the last ten years, because the Deputies would have reported it if there had been. He did not remember Evans reporting gas to him, as stated by Evans. He did not admit that, as stated by Mr. Broadhead, gas was given off in all sections of the mine, though rarely. He would swear there had been no gas in Kembla to his knowledge during the last five years, i.e. since the new air-shaft was constructed; since that shaft was put in he did not consider that there was any gas at all in the mine. He knew that it was a mine that gave off gas; but he relied on the regular ventilation and on the fact that gas was not found.

W. Moore, Miner, stated (pp. 47-48, Inquest) that, when Mr. Broadhead was Manager of the Mine, and Mr. Rogers was Under Manager (seven or eight years before), on one occasion when he went into work, gas lit at his fire-lamp, and the flame rolled round and round for about 15 or 20 yards out of the heading and then back again, and he dropped down to save himself from being burnt (the gas was apparently lying along the roof, as would be natural). He reported the fact to Evans. It was after the construction of the present ventilating shaft. This was in the cluster heading. His wife was burnt a bit. When working in the No. 1 District he did not see any fire-damp to speak of, but at times he would meet a "blower." That was over two years ago. He thought he had told Mr. Nelson about the "blowers." In the No. 1 he never had any lighting up like that he spoke of in the cluster heading; at "just burnt like a candle."

M. Quinn, Miner, stated (pp. 51, 52, Inquest) that one day, about eight years ago, when Mr. Rogers was Under Manager, he had lit a jet of gas in front of Mr. Rogers in a heading in the No. 1 District; he had lit the gas several times when by himself, he told Nelson (then Deputy) there was gas in the place; gas could be seen in any hole; about seven or eight months ago (say, in January, 1907) he saw gas coming out of the face into the hole in the 5th Right (No. 1 District), and on several occasions set fire to gas in that place; he drew Deputy Dunphy's attention to it. He could find gas there any time, after a shot which had not broken down the coal, or cracks. He reported gas when he thought it was dangerous. The next day, being recalled, Quinn stated that he did not speak to anybody when he found the gas in the 5th Right. He was talking to everybody about the gas, it was such a common thing. It was common talk at Mount Kembla for about nine years. When he reported the gas to the Under Manager, he (Mr. Rogers) took the proper precautions. He never saw any other men light gas; but he expected they would do as he did; setting fire to the gas (to clear it away) was no idea of his own. (See also Qs. 1577-1582, Commission).

Examined before the Commission, Quinn stated that eleven years ago a man named Robinson had his beard singed by gas which was lit at the face. It was subsequent to the erection of the present furnace (Qs. 1412-1414).

G. Harnsey, Miner, stated (p. 54, Inquest) that about twelve months ago, when working with O'Sullivan, he saw gas in the 4th Left (No. 1 District); he told Deputy Nelson.

- R. O'Sullivan, co-miner, stated that about 11 o'clock one day in November or December, 1900, or 1901, he was working in the 4th Left off No. 1 Right, when Ramsey put his light up to his face to look at it, and some gas hit; Ramsey reported it to Mr. Nelson. (Pars. 1212-1217, 1240, 1257, 1304, 1312, Commission.) He had two or three times seen men put a light to the face after firing shots, and gas had hit and burnt for a few seconds. (Pars. 1229, 1234, 1330, 1361, 1366.)
- E. Stanford, Miner, stated (p. 55, Inquest) that he had worked in the 3rd Right, off No. 1 Right, and, while there, three and a half years ago, one night when he and his brother were going in to the face, gas hit from their lamps; they went out and told Deputy Ramsey. He had worked in the 4th Right and 4th Left, but never found gas in any portion of the mine except the 3rd Right.
- C. Smith, Miner, stated (Qs. 1903-1906-2226, Commission) that, about six months before the disaster, he was working in No. 44 in the Shift District, and one day, after firing a shot, his mate, Prior, went back, and some gas hit up. He told Deputy Evans about it. About a week later gas hit again in the same place, when he himself went back after firing a shot; he reported this also to Evans. He had also heard Jackson, in the next haul, No. 20, report to Evans the lighting of gas.
- J. Silesick, Miner, stated (Qs. 2710-2728, 3137-3148, 3211-3249, Commission) that he had seen small flashes of gas after powder shots twice (about January, 1902). He did not report the gas. He did not think there was a sufficient quantity to be dangerous. The mine was talked of as a new-gassy mine. The real reason he did not report gas was that he was afraid to do so, if a man were to report everything he saw, he would never work again in his life.
- J. Sells, Miner, stated (Qs. 4990-4991, 5181-5212, 5228-5262, Commission) that, about seven or eight months before the disaster, he was working in a heading running towards Powell's Flat, and there was gas there, after firing shots, his mate, Allen, lit gas on numerous occasions. While working there, Deputy Evans came in, and Allen drew Evans' attention to a slaying noise where water was coming from the coal, and Evans said it was gas. Evans was a good Deputy.
- J. McLeod, Miner, stated (Qs. 7029-7032, 7129-7168, 7519-7940, Commission) that during the nine months before the disaster he worked in the Shift District in a heading towards Powell's Flat, near where Maunders and Williams were working. After Maunders and Williams had fired a shot, they went to see what work the shot had done, and gas hit. He also saw something similar in the No. 3 District in a place off Prior's Flat, No. 72 on plan, about a month before the disaster; the gas hit after firing a shot. He did not report it; he had heard of a rule which required the men to report, he had a copy of the special rules.
- T. Mear, Miner, stated (Qs. 10845-10861, 10870-3, 10886-10912, Commission) that he had often seen gas light after powder shots, but not under any other circumstances. He had worked with Quinn; but never saw Quinn light gas.
- T. Jackson, Miner, stated (Qs. 11060-11080, 11107-11111, Commission) that, when working in No. 4 Right, Shift District, twelve years ago, gas hit at his face lamp, he saw the same kind of thing once in the 4th Left or the 2nd Left off No. 1 Right Main Level some years ago. He had seen his mate light "powder-smoke" after shots. When he found gas in No. 4, he reported it to Mr. Rogers, then Under-manager, who ordered himself and his mate to use safety-lamps to finish the work off.
- J. Brown, ex-miner, stated (Qs. 12072-12136, Commission) that he had twice seen gas hit in the working-places off the 1st Left (twenty to twenty-three months before the disaster); he threw down his lat, to which his flame-lamp was attached, on the floor, and some gas hit. He did not report that. About nine or ten months before the disaster he met Deputy Dargy going down

down No. 1 Right Main Level, where it was rising (northern end), about 100 yards from the shore, and Dengry said to him "If you had been here before me, you would have got your head blown off, she was standing full of gas for 10 or 15 yards back, the battery was all down." Between seventeen and eighteen years ago he (Dengry) lit gas in "Old No. 4" after a powder shot. He did not report it.

C. Biggers, Deputy of Mount Kembla (Qs 13272-13283, 11543-7, 12502-12573, 12604-12618, 12622, Commission), stated that, when a miner, he had seen gas lit after shots—eight or nine years ago. He thought it was fire-damp, but they called it powder-smoke. Of late years he did not think there was any. He had heard a hissing sound, but did not know whether it was water or gas, he could not find it with a light, and took it for granted that it was water.

P. J. Brownlee, Clerk Wingham, ex-miner, stated (Qs 29710-29730, Commission) that, ten or twelve years ago, he lit gas in No. 4 Right in Shaft District when he first went in in the morning, and got the hair burnt off his head. He reported it to Deputy Evans.

Mr. W. Rogers, Manager, Mount Kembla Mine, whose evidence at the Inquest on this point is summarized above, stated to the Commission (Qs 29971-29997, 16912-4, 20045-6, 20701-3, Commission) that, about two years before the Gallagher case, he saw a little gas in the 4th Left, but since that case he never knew of gas being given off in Mount Kembla in any quantity. He would not say that the mine gave off no gas, he thought it did, a little. He denied that Quinn lit gas in his premises, and that Evans reported fire-damp to him (Qs 22971-22973).

Mr. G. Leitch (Manager of Standard Horthope Colliery), ex Under-manager of Mount Kembla, stated (Qs 22340-22346, 22373-5, 22541-22562, 22568-22576, 22602, Commission) that he had seen "powder smoke" lit after a shot, but had never seen fire-damp in the mine, nor had it been reported to him. When he heard of the accident, he did not believe Kembla gave off gas.

Mr. A. A. Atkinson, Chief Inspector of Coal Mines, stated (pp. 56, 57, Inquest) that, on the 2nd of August, 1902, (two days after the disaster) he made an inspection of the mine, in company with Mr. McGonagle, who carried a hydrogen lamp; in No. 72 working-place they found 1 per cent. of fire-damp; in the next place $\frac{1}{2}$ per cent.; in No. 80 they found 1 per cent. On the 4th of August, another inspection was made by a party, and in No. 82 they found $\frac{1}{2}$ per cent. (both tests with hydrogen lamp). In the No. 1 Main Heading, between the 100 and the 500, gas was found with safety-lamp; in Morris' working-place, No. 89, with the hydrogen lamp, $\frac{1}{2}$ per cent. was found.

Mr. Atkinson, when examined before the Commission, stated (Qs 12842-12856, Commission) that, on the 4th of August, some thousands of feet of gas which would explode in a safety-lamp were discovered in No. 1 Main Heading.

Mr. W. Hunkle, Inspector of Coal Mines, who accompanied Mr. Atkinson in his inspections, corroborated (Qs 29702-5, 29804, 29822-29897, 29908-29960, Commission) the Chief Inspector's evidence as to the finding of fire-damp after the disaster; at the time the ventilation was all disarranged. Speaking of the 4th of August, he stated that in No. 1 Back Heading, opposite the North-east cut-through, he and Mr. Littlejohn, who had separated from the rest of the party, found their safety-lamps full of fire-damp. They immediately retreated to the good air. They then gradually returned towards the face, leaving with safety-lamps, till they again found the gas, at a point 4 yards on the outbye (South) side of the last cut-through. As the availing was rising they concluded that the gas extended to the face, through the cut-through, and to the face of the back heading also, which would give a volume of inflammable mixture of 10,000 cubic feet. They called the attention of the rest of the party to this, they

then

then went on with the inspection. Later, an agent joining the party, Mr. Humble stated, he and Mr. McGraw had looked for gas in the 4th Right at the Guff edge and found $\frac{1}{2}$ per cent. with the hydrogen flame. (This is denied by Mr. McGraw.) On the 8th of August, he stated, he tested at 4th Right Guff edge with Mr. D. A. W. Robertson, and found $\frac{1}{2}$ per cent.; but on examination of Mr. Humble's note-book discloses that the note he made on this occasion was that $\frac{1}{2}$ per cent. was found. Mr. Robertson's recollection of the inspection referred to was that no gas was found; and he has since drawn to the Commission his note, made at the time, which reads as follows:—"No gas in hydrogen."

49. It will be seen that nearly all the evidence of others, above quoted, refers to the opinion of gas after powder shots—referring, it would seem, in all cases, to shots that have split, but have not blown, the coal; and there is a certain amount of doubt as to whether this gas was fire-damp, or whether it may not have been a mixture of carbon monoxide and other inflammable gases produced by imperfect combustion of gunpowder. The remainder of the miners' evidence, however, taken in conjunction with that of Mr. Atkinson and Mr. Humble, formed a body of testimony going far to prove the existence of fire-damp. The Commission, however, decided to make tests themselves with a hydrogen lamp, as already mentioned; with the result that fire-damp was found to be given off by the coal in several widely distant parts of the mine; but in such a very small proportion that it is, under present circumstances, easily dealt with by the existing efficient ventilation. This result, taken in conjunction with the evidence quoted, leads the Commission irresistibly to the conclusion that, right through, from the opening of the mine to the present date, it has been capable of producing enough fire-damp to warrant the assumption that, given favourable conditions for accumulation, a dangerous collection might be found in almost any part of the workings. The accumulation that was found at the end of No. 1 Right Front and Back Headings after the explosion, and before the proper ventilation of the mine had been re-established, may possibly be explained away by supposing that the gas was somehow distilled, and left behind, by the heat generated in the disaster itself, as was suggested by some of the witnesses called by Mr. Wade on behalf of the Mount Kemble Coal Company; but the Commission are not inclined to accept what appears to them to be so far-fetched and improbable a theory.

50. Having arrived at the conclusion that fire-damp was being continuously given off in the mine, the Commission proceeded to consider the evidence bearing upon the effects of the disaster, in order to ascertain, if possible, whether it was or was not primarily caused by an explosion of gas. The history of similar occurrences elsewhere goes to show that, after the majority of gas explosions, signs of great heat and of flame are found, in the shape of coked or singed coal-dust, charred or burnt timber, the burning or blistering of the skin of miners, and the singeing of their hair. On behalf of the Mount Kemble Company it was contended that none of these evidences were present to such an extent as to prove that flame had been an operating agent in the disaster; and, though mainly only explicable by the presence of flame had been observed by witnesses, it was contended that these could have been produced by the comparatively moderate heat of the wind-blust; that they could certainly have been caused without the presence of actual flame; and that in the case of those who were injured at the mouth of the main tunnel the blistering might have been due to the steam which escaped from the fractured steam pipe. As against this, the Commission have the opinions of many intelligent, though unprofessional, eye-witnesses that the degree of burning or singeing which they noticed on the bodies of the victims could not have been caused except by flame, and the evidence of the medical gentlemen who examined the victims that a number of them were actually burnt by flame. The question was definitely settled, however, on the last day but one of the taking of oral evidence, when Mr. Lynght (who, when he closed his case, had not supposed that the occurrence of flame would for a moment be contested) called two witnesses who testified, and whose evidence the Commission had no reason to doubt, that they had seen a large volume of flame burst from the Main Tunnel Mouth when the disaster occurred; and another witness who saw a tongue of flame shoot upwards from the old blower ventilating shaft to the top of the No. 1 Right Rope Road, with which it was in direct communication. Marks of charring

charing (said by witnesses called at this stage to have been caused by the flame that burst from the tunnel itself) were plainly to be seen on the lining-boards of the weigh-cales, and were pointed out to, and examined by, the members of the Commission on the occasion of their last visit to the mine; and the Company's Officers, some of whom were present, did not dispute this fact.

51. In addition to this direct evidence of visible flame seen by eye-witnesses to burst from the mine, there is strong presumptive evidence deduced from analysis made by Mr. Hamlet and Mr. Mingaye. The samples analysed by Mr. Hamlet were two, one taken from a prop in the first line of cut-throughs of head No. 32 (the third head to the west of No. 1 Right Main Heading), at a point about half way between the 4th Left Rope Road and the last line of cut-throughs to the north, the other from the eastern rib of No. 1 Right Duck Heading, just opposite the last cut-through connecting the two headings. Mr. Hamlet found a difficulty in analysing the samples sent to him, by reason of the smallness of the quantity. No satisfactory conclusion could be drawn from the difference in the percentage of volatile hydrocarbons in the samples and in a sample of coal from the mine afterwards analysed by Mr. Hamlet, for the difference actually found (so far as it can be taken as a real difference due to distillation, and not a merely accidental variation) was only 7.0 per cent. (24.00 per cent.—31.01 per cent.) (see Exhibit No. 17); but the microscopic examination of the three samples of dust led Mr. Hamlet to the conclusion that they had been probably subjected to the direct action of flame, and that a temperature of at least 600° Fahrenheit would be necessary to produce the effect found.

52A. The evidence, however, of Mr. Mingaye (Q. 29378 & seq.), Analyst and Assayer to the Department of Mines, is of much greater value. He was supplied with twelve samples of coal-dust, in quantities sufficient to enable him to make satisfactory tests. The samples had been collected by Mr. Inspector Watson some short time after the accident: the respective positions in which they were found are marked by numbers on the plan (Exhibit No. 26) corresponding with those used by Mr. Mingaye in his report; and, with one exception (No. 11—from the 4th Right Rope Road), they came from various points on the No. 1 Right Main Incline Road. Telling, as he does, on an apparently sound basis, the mean amount of volatile hydrocarbons contained in Mount Kembla coal is 23 per cent., Mr. Mingaye finds in the samples lower of these hydrocarbons, apparently due to distillation by heat, varying from 9.6 per cent. of the whole mass of a sample as it is presumed to have been constituted before distillation (or 4.09 per cent. of the hydrocarbon originally contained in it), up to 12.03 per cent. or 51.33 per cent., respectively. The means of these two percentages of loss, taking the whole of the samples, being 51.9 and 53.43. From these facts, added to a microscopic examination, which shows clearly visible signs of charring, Mr. Mingaye unhesitatingly concluded that the particles had been subjected to flame at a temperature represented by a cherry-red heat, 700° to 800° Fahrenheit.

53. Taking all this evidence into consideration, the Commission do not consider that there is any room for doubt that flame did play a part, and a very important part, in the disaster.

54. But the question arises whether this flame was the result of the ignition of gas or of coal-dust, or of both in conjunction. In recent years it has been recognised that coal-dust has been a very important factor in Colliery explosions, and that by far the greater portion of the damage caused by explosions in mines where there was dust has been due to the ignition and explosion of the dust rather than to the explosion of the fire-damp which was first lit. The occurrence of explosions in mines believed to be free from gas has even given rise to the suggestion that coal-dust alone may ignite at a naked light and cause a disaster; and experiments have been made by scientific men for the purpose of settling this question. The most notable of these were the experiments of Professor Bolton, who found that a mixture of coal-dust and air would ignite at a temperature of 293 degrees Fahrenheit. This has been quoted by a number of Mr. Wade's witnesses in support of the whist-blast theory, but they appear not to have given weight to the fact that, in his experiments, Professor Bolton applied the heat gradually, so that there was time for fire-damp to be distilled from the very fine

fine dust (in the presence of air) which he was testing; before the actual ignition took place—and to this element of appreciable time, for the necessary condition precedent of complete chemical action, the Commission attach substantial weight; whereas, at Mt. Kemble (even if it be admitted—a conclusion which appears to the Commission wildly improbable—that the air was suddenly compressed to a tension of 35 lb. to the square inch, and that thus a temperature of over 291 degrees Fahrenheit was attained), the pressure would be at once reduced when the blast reached the Travelling Road, where there were two openings, and the heat resulting from compression would be immediately very greatly lowered by re-expansion; this reduction, continually increasing as the ejected air moved on into what would relatively be almost a vacuum, would find another outlet for further sudden relief at the junction of the 4th Right and the Main Engine Road: and, although a position in the latter road about this junction was evidently the centre of force—the dead point of destruction—quite clearly the mixture of air and dust must have passed, and fallen well below, its maximum temperature before that position was reached by the blast, which, moreover, as a body advancing with—according to the hypothesis—conscious, if not incredible, speed, would, by reason of the acuteness of the N. E. angle of intersection of the two roads, tend to travel to the southward; on that side, therefore, and not on the north, of the junction, the compression would rather be sustained, and the consequent ignition, if such a thing could happen, would take place—and not that it evidently did not do. The Commission, therefore, do not see that there is any probability that there was, just before the disaster, any such excessive heat evolved as would, without contact of flame, cause inflammable gas to ignite from the coal-dust and thereafter become ignited: so they are forced to the conclusion that the initial cause of the disaster was the ignition of an inflammable mixture of fire-damp and air about the junction of the 4th Right Rope Road with the No. 1 Right Main Level.

34. As to how this fire-damp could have been ignited, only two suggestions were advanced, that of Mr. Atkinson being that it was lit at the 4th Left Junction, at the naked light carried by the wheelbar found there after the disaster; while Mr. Humeble was divided in opinion between Mr. Atkinson's theory and another suggested by himself; which was that the ignition took place as T. Percell passed across the 4th Right on his way down the Travelling Road, and that the flame then flashed through the 4th Right to the main body of gas in the Main Level. But Percell's body was found in the Travelling Road some 38 chains south from the 4th Right; and it seems highly improbable that, if his light had been the source of ignition, he would not have been exposed to such an extent as to render him incapable of walking, in the dark, and over a number of falls, so far from the scene of the explosion. Mr. Atkinson's theory, which seems very reasonable in the light of the ascertained facts, is that the lighter portion of the fire-damp was carried forward by the inflowing air to the 4th Left Road, where it was lit at the naked light carried by Wheeler Morrison, as already stated. This the Commission believe to have been the case.

35. The next point to be considered is: Where did the fire-damp come from? It could not have come from any point on the No. 1 Main Level itself, because that is a main intake air-way. Nor could it have come in the return air along the Travelling Road, because that was separated from the Main Level at the 4th Right by canvas doors; and, though these were blown down, that destruction of the division between intake and return would require a considerable force, and there is nothing that can be suggested which could have generated such a force on the Travelling Road. The fact, however, that canvas from the door or doors (the Commission are not quite clear as to the existence of more than one) across the 4th Right between the Main Level and the Travelling Road was found blown into a crack in the coal on the opposite (western) rib indicates that a force of some kind had probably operated in the 4th Right from east to west, whereas if these doors had been blown out of place by the explosion itself they would have been forced as towards the Travelling Road, from west to east. Again, the fact that the main force of the explosion radiated from about the 4th Right Junction proves that that is where the main body of explosive gas was at the time of the ignition, and these two indications, taken together, naturally suggest that the gas came out of the 4th Right. Examination which were made of the 4th Right showed that a large area of the roof of

the 35-acre waste had fallen, this being the fall of roof referred to in both the gas and the windblast theories; and, for the purpose of the latter theory, it was assumed that there was a fall of an area of roof 14 yards square; but the statement of Mr. Loftin (Manager of Stamford Marthyn Colliery, West Midlands) who was Under Manager of Mt. Kembla up to six weeks before the disaster, gives the area which assumed to fall as much less than this, being only 1,244 square yards (the 1245-2452's Commencement) which would be quite insufficient to develop the energy requisite to support the windblast theory. There can be no doubt, however, that such a fall as did occur might drive out a volume of air with enough force, notwithstanding the lateral relief it would get on reaching the Twelling Road, to blow out the mine's doors between that road and the Main Level, and so drive any gas that may have been with it out on to the Main Level, but much doubt was expressed by Mr. Wade's witnesses as to the probability of there being any gas in the 4th Right Goad to be so driven out. Morrison, a Deputy in the mine, stated that, a week before the accident, he went to the 4th Right, to see if the roof had fallen, and found that there was a fall of about 2 feet 6 inches in thickness, lying on the floor. He was carrying a safety-lamp at the time; and, if gas had been issuing from the goaf in any proportion over 2 per cent. of the atmosphere, he would probably have noticed its effect on his lamp; but, as his attention was directed, principally, to the state of the roof and the nature of the fall, and he does not appear to have had any thought in his mind of the possibility of gas, or of any danger incidental to its presence, he may even have failed to observe some slight indications that would otherwise have attracted his attention. In reply to the obvious argument that the gas, being lighter than the air, may have, even then, been present in the higher parts of the goaf, against the roof, without showing in the roadway, it was contended that, if gas had been there and if a fall would drive it out, then the fall which Morrison saw a week before the disaster would have done so. It was further pointed out that, the coal having been all extracted from the area, there was nothing in it to produce gas, the strata above and below being sandstone, and, even while coal was being won, gas was never found in any of the 4th Right workings. As against this, Mr. Atkinson considered that there might be gas in the roof strata which would be released by a fall. This, however, he advanced merely as a likely supposition, having no means of getting at the actual facts. In support of his supposition, however, there is the evidence of Mr. T. Parson (Consulting Mining Engineer) and Mr. W. Humble, Inspector of Mines. Mr. Parson recounts here, in the sinking of the shaft of the Sydney Harbour Colliery at Holmside, gas was found in seams and crevices of the strata 1,000 feet above the seam of coal, in some cases under such pressure as to cause the floor to lift beneath the feet of the men engaged in sinking; but Mr. Parson did not agree with the theory that gas might exist in the strata above the seam at Mt. Kembla.

56 Mr. Humble, whose evidence has been summarized in paragraph 45 of this report, depared to the finding of 1 per cent. of free-lump with the hydrogen lamp on the top of the fallen stone at the entrance to the goaf from the 4th Right, four days after the disaster, by Mr. McGeechie in his presence. Mr. McGeechie (who had taken no notes) denies this. There is a conflict of evidence here—perhaps it is better to call it a conflict of recollection; but, taking into consideration all the circumstances (one of which is the important fact that Mr. Humble's notebook contains an entry of the finding of the gas, and bearing in mind that, at the time the discovery is said to have been made, the importance of the 4th Right in relation to the origin of the explosion had hardly begun to dawn upon the minds of the inspectors (so that the discovery in this particular place of so small a percentage would be likely to be regarded by them as a comparatively trifling incident), the Commissioners have come to the conclusion that Mr. Humble's account is correct.

57. Haron's evidence, also, suggests that it is possible (though the Commission do not think it is probable) that gas may have been given off even from parts of the floor of the goaf, either from "false bottoms" or from the strata separating the two seams, in which the upward curvature known to be commonly induced in the course of taking out the pillars, by unequal distribution of weight, would naturally have caused cracking. It may also be feared that a splitting of the roof, due to downward curvature, must produce every ordinary bill. Apparently, the forced pressure of air (in changing unsteady conditions), at the elevation of the Mt.

Konable workings may be put down at 14 lbs to the square inch. In the absence of partial detachment of a stratum of rock, allowing air pressure to operate above the stratum, this pressure would, by itself, hold up 32.5 feet perpendicular of the roof, even taking the specific gravity of the rock as high as 2.65 (4 tons to the cubic yard). In addition to this, there is the tensile strength of the material, capable of sustaining several feet more, as well as the lateral attachment. As long as the over-weight remains absolutely right, no fall of less thickness than considerably over 14.5 feet can begin, unless—a far-fetched suggestion—interlaminated hydrostatic pressure, or gas in a state of high compression (concomitant with the no-gas hypothesis), were assumed to operate downwards against sustaining air pressure. It seems, therefore, almost self-evident that when, as commonly happens, and as had, shortly before the disaster, happened in this case, a fall of a few feet in thickness occurs, curvature (starting, it may be, even at the surface, where overhead air pressure operates, or, perhaps due to general rock expansion) must have begun, inacceptable though it may have been. This would almost certainly be accompanied, in such a slightly elastic mass, by cracking; and, as experience shows does actually always happen, the rock would fall, not in a solid sheet, but in what may be called a stream of broken stone. Shortly before the fall, and during its continuance, gas, if contained in the strata, would be extended; the air, driven out with violence proportionate to the suddenness of the fall, would be, in part, forced upwards through the avalanche into the cavity above and would finally carry out with it a portion of this gas. So that, in the result, whatever gas had collected in the hollow roof left by the first fall would almost all be forced out, and would be supplemented by part of what was released by the second fall. Of course it is not known what the thickness of the second fall was, and the degree of the management in sealing up the 4th Right protected the Commission from making a much-desired examination.

58. The above considerations, as well as suggesting amount of gas, go to show the absurdity of the hypothesis that the roof can have come down instantaneously in one solid sheet that drove out in a moment (half of it through the 4th Right Hope Road and half in other directions) the whole bulk of underlying air, generating a blast compared with which the worst-known tornado would have been a trifle, and a hark, if it had taken place, would have left the office through which it rushed a shapeless wreck.

59. Therefore, considering all these circumstances (viz., that the room generally gave off fire-damp, that the explosion was initiated by the ignition of that gas; that there was a large fall of the roof of the 4th Right Goaf, that this fall did force out a blast of air with sufficient force to blow out the canvas door or doors between the back and front headings; that the centre of the explosion was in just such a position as would be reached by gas if that gas were forced out with the blast of air into the Main Heading through the 4th Right); and considering the expert evidence of Mr. Atkinson, together with the actual finding of gas in the Goaf by Mr. Konable after the explosion; and the fact that the Commission themselves found the Main Konable mine generally to be giving off gas; the Commission have come to the conclusion that it is reasonable to assume that the fire-damp which was the primary cause of the disaster came from the 25-acre waste, though of this there is no positive proof.

60. The fact, however, that gas was never before found in the 4th Right Workings, or in the Goaf after the workings were completed, seems to indicate that there could not have been a very large volume of gas there to be driven out; and it is almost certain that the explosion of such a volume as the Commission deems it reasonable to suppose was driven out could neither have caused all the exhibition of force seen in the mine, nor have operated over so wide an area as was affected. This, at first sight, would seem to be a difficulty in the way of the conclusions of which the Commission have, so far, arrived. Another circumstance which would also appear to be difficult to reconcile with the Commission's conclusions is the fact that, though, as a general rule, the indications showed the force of the explosion to have operated from the 4th Right outcrop to the tunnel mouth and from the 10th Right relay to the face, there were several indications of energy having been exerted in directions contrary to a

Inconsistent

inconsistent with such a force. It is, however, a well-known and widely-accepted fact that, where coal-dust has been a factor in explosions, the evidences of force have generally been found to be contradictory in character; and thus, where contradictory indications of force are found, it is reasonable to deduce, conversely, that they have been caused by the ignition and explosion of coal-dust. This consideration led the Commission to carefully examine the evidence as to the nature, composition, and explosibility, of the Mount Kenilbe coal-dust. As already pointed out by the Commission when describing the mine, the dust is not, like that of the Metropolitan Colliery, a very finely-divided powder, and it does not, unless disturbed by some violent motion of the air, rise, nor, when it has risen, does it remain long suspended. While, however, in relation to its state of mechanical division, Mount Kenilbe dust is much less likely to mount in, or carry on, an explosion than the Metropolitan dust (and this conclusion seemed to be strongly borne out by the results of the experiments made by the Commission, vide pars 30765-30740 of the evidence); still, chemical quantitative analysis has shown that it contains a much larger amount (over 28 per cent) of volatile hydro-carbons than is found in the Metropolitan dust (15.1 per cent). Moreover, the tests made at Woolwich in December, 1901 (vide p. 75 *inter alia*) show that Mount Kenilbe dust stands relatively high in explosive force, giving rise to what is described in the report as "violent explosion," while the expression used in relation to the Metropolitan dust is "explosion." The probability is that these tests were so carried out as to allow the excessive inflammability due to the presence of this high percentage of hydro-carbons to have full play, the instantaneous combustion required for explosion being very thorough; and it is a reasonable conclusion that, if an initial explosion caused by the ignition of fire-damp, mixed with some fine dust and an appropriate quantity of air, were violent enough to represent fairly the conditions of these Woolwich experiments, there well might follow, in spite of the comparative heaviness and low divisibility of the Mount Kenilbe dust, a most destructive and long-continued series of dust explosions. This, indeed, is what the whole trend of the evidence before the Commission leads them to conclude has been the case in the disaster at Mount Kenilbe, and dispenses of the difficulty before stated, by explaining how the explosion of a relatively small quantity of fire-damp in the atmosphere of the No. 1 Main Level at about the 4th Right Junction started a series of explosions of coal-dust, which penetrated a large portion of the workings, and travelled right out, with apparently unaltered force, to the Tunnel Mouth. That the conditions would be favourable to such an ignition and explosion of coal dust there can be no doubt, for the blast of air forced out from the 4th Right was, without doubt, sufficiently violent to raise and diffuse a cloud of dust from floor, roof, and sides; this would be ignited by the explosion of the fire-damp, which would raise a further cloud of dust; and so each explosion would, in turn, raise supplies of fuel which would ignite in such quick succession as to be practically one instantaneous explosion, receiving fresh accessions of force as it reached fresh supplies of oxygen in the air-passes which it passed or traversed on the surface which it took.

Cause of Disaster shortly stated.

61. The Commission having thus traced the course of their reasoning, the conclusions at which they have arrived may now, for convenience, be shortly summarised as follows:—

62. A fall in the 33-arse West-chase air inflammable mixture of fire-damp and air down the 4th Right Rope Road to the No. 1 Right Main Level with sufficient force to cross the Travelling Road without distilling itself in that road to any great extent, and to blow out a square door (or doors, as to which there is a doubt) between the two headings. The mixture, driven, in a state of compression, into the Main Level, with a tendency (due to the angle at which the 4th Right road cut that road) to travel rather outbye than inbye, meeting the air current, and its forward movement thus retarded and its momentum quickly reducing, its scud came to be about the 4th Right Junction. The northern extremity of the mass, spreading inbye

inbye along the Main Level, first reached the wheeler's light at the 4th left in an over-dilated state, but, as soon as a mixture rich enough to burn came in contact with the light, a flash of flame ran back, starting the destructive action by communicating the ignition to the whole body (which was made more violently explosive by the presence of coal-dust raised by the first blast). Thus the centre of force showed itself at the centre of the explosive body, and not at the point of ignition; though there is a prevailing and natural, but the Commission believe erroneous, inclination to assume that in such cases the force must necessarily radiate from this point. The fire-damp had first exploded; and, in turn, started a series of explosions of coal-dust, which wrecked a large portion of the mine, and killed a number of the miners. These explosions of fire-damp and coal-dust generated a large quantity of carbon-monoxide, and it was this deadly constituent of the after-damp of the explosion which caused the death of by far the larger number of the victims of the disaster.

Verdict of Coroner's Jury and Finding of Commission Compared.

63. This conclusion, it will be seen, is at variance with that of which the Coroner's Jury arrived. The Commission would have been only too glad to accept that finding as a true solution, if they had not found very good reason to depart from it. So far as the verdict gives a gas explosion as the primary cause of the accident, the Commission consider it to be correct. The explosion "accelerated by a series of coal-dust explosions" has apparently been used by the Jury in the sense of "aggravated," or "intensified," or "continued," by a series of dust explosions; as these explosions necessarily followed and did not precede the moment of initiation of the catastrophe (being the effects, and not one of the causes, of its origin) they cannot have accelerated it, though they certainly might add to its operation. But, in so far as the Coroner's Jury find the origin "at a point in or about the No. 1 main level back headings" (a conclusion which the finding seems to intend, and not merely that the gas explosion started from thence), the Commission cannot but think that this part of the verdict was mistaken; but they recognise the fact that the body of evidence upon which it was founded stood, at that time, much less weakened than it had been, at the time of the Commission's Inquiry, by Mr. Canby's careful and exhaustive examination. There were arguments appearing at the time of the Coroner's Inquest in favour of one view that were, later, completely answered by the overpowering evidence of the direction of force—a force relatively too great to be taken as secondary—going to prove the other contention at the time of the Commission's Inquiry; so that, in departing from the verdict of the Jury on the question of origin, the Commission feel—and they wish this to be clearly understood—that they in no way reflect on, nor have they lightly regarded, the conclusion carefully and honestly arrived at by the tribunal properly entrusted with the duty of attempting to discover the truth. And, even, in expressing their own view, the Commission say no more than that their finding is, after the fullest consideration, the explanation they think most probably consistent with truth—certainly is quite impossible to sustain, in the face of such remarkable, and in many cases incalculable, confirmations. Four of the expert witnesses who gave evidence at the Inquiry as to the place of origin, based upon an examination of the operation of the forces, were called at the Inquest. Although Mr. Arkison had made his report, he had not then the advantage of the plans afterwards prepared, showing the directions in which the force of the explosion operated, and had not had time for mature consideration of the observations he had made; so that, though he had more than a suspicion that the seat of the disaster was to be found near the 4th Right Junction, he was apparently really influenced in his judgment by the discovery of such a large quantity of fire-damp in the No. 1 Right Frost and Back Headings at the face, and was thus led to adhere to that locality.

Does blame attach to any Person or Persons? In other words, has the Negligence of any Person Caused, or Contributed to the Cause of, this Disaster?

64. One of the directions to the Commission is to "ascertain whether blame attaches to any person or persons" in connection with the disaster, "and, if so, to report the person or persons to whom the blame attaches." This has been the subject of careful and anxious consideration. During the Coroner's Inquiry the fact was elicited that Special Rule No. 10 of the Mount Kemula Mine (which has, under the Coal Mines Regulation Act, the force of law) regarding the examination of waste workings, had not been strictly complied with. The rule provides that:

He (meaning the Deputy) shall, at least once in every week, examine, so far as is practicable, the state of the waste workings, and make and sign a true report of the state thereof in a book kept at the office for the purpose.

When under examination, John Morrison, the Deputy in charge of the No. 1 Right District of Mount Kemula, stated that he made the examinations of the 33-acre waste and the other wastes in his district once a month, not once a week, as required by the Rule (pp. 16, 28, Inquiry). He did not consider it reasonably practicable to examine the waste workings every week: he could not say who fired a month in the period in which the waste workings were to be examined. His superior officer, Mr. Nelson, Under-manager, (one of the victims of the disaster) told him when the inspections of waste workings were to be made (pp. 17, 27, Inquiry). He had only made two monthly inspections of the waste workings (p. 20, Inquiry). He had only held the position of Deputy for nine weeks when the disaster occurred (p. 14, Inquiry). (See also Qs. 11626-11631, 11748-11754, 11762-11777, 11810-11826, 11828-11840, 11850-11858, 11930-11936, in evidence before the Commission.)

65a. This evidence shows clearly that Special Rule No. 10 was not being complied with, as the wastes (or goafs) were not examined once a week. The only explanation that Mr. Rogers could give was (Qs. 25610-25614, 25624-25627, 25686-25693, 25695-25698, 25699-25703, 25712-25714, Commission Evidence), that he understood the rule to mean that, if it was practicable to examine the goafs once a week, it should be done; and, as he did not consider that practicable, he had them examined once a month.

66. This is a strangely mistaken interpretation of the Rule, which, of course, means, and clearly enough expresses the meaning, that waste workings shall be examined once a week, to such an extent—in instance, as far into the fallen ground—as "practicable": a word that is equivalent to "physically possible as well as reasonably safe." Here the rule came to be so erroneously used in the first instance does not appear: indeed, it seems hardly possible that any careful and fairly educated man could make such a mistake. Still, assuming that Mr. Rogers, whose literary attainments are not of a high order (English not having been his native language), whether may be his practical experience, found the error accepted and acted upon, he could perhaps hardly be censured for allowing its continuance: but, when it was actually, as the Commission believe it was, brought under his notice by Mr. Leitch (vide Qs. 25628-25650, Commission Evidence—Mr. Rogers' denial, Qs. 25651 &c.), is so vague that the Commission accept Mr. Leitch's account as substantially correct), and Mr. Rogers justified himself by saying in effect that the rule was being substantially obeyed "because he was examining the waste workings every day"—an examination which cannot possibly, if it could be said to be an examination at all, have been more than superficial—the Commission think Mr. Rogers certainly deserving of censure. As to Morrison, however, it seems unfair to impute any appreciable blame to him for practically obeying the orders of his superior officer.

67. The disclosure of the fact that the 4th Right Goaf (the 25-acre waste) was not examined once a week naturally led Mr. Lysaght to suggest that this neglect had contributed to the disaster. The list of the regular monthly examinations was made by McIlurray and Morrison on the 18th of July, the disaster occurred on the 24th, 26th, and 31st, of July, notwithstanding that he had made his monthly examination on the 18th, because about that time the workings, in the 4th Right

Right were finished, the props were withdrawn, and he was expecting the roof to fall. There was some confusion in Morrison's evidence as to how the monthly examinations were made (pp. 13, 16, 17, 18, 20, 29, 31, Inquest). The roads leading to goafs are fenced off; and no person, except an official on duty, is allowed to go past these fences. Morrison at first said that, on examining at the 4th Right and other goafs, he did not go inside the fences (p. 16, Inquest). This would, obviously, not be a compliance with the rule. But later in his evidence he said that he did go inside the fences, and right up on to the fallen stone at the edge of the waste, so far as it was possible and safe to go (p. 18, Inquest). (Q. 11736). Regarding this examination on the 19th of July, Morrison stated that he and McKewen used naked lights (p. 16, Inquest); they did not expect to find gas; they did not look for it; but they would have found it with their naked lights if it had been there (p. 17, Inquest). Later, Morrison said he did look for gas, and that he put the lamp into the waste to look for gas (p. 17, Inquest). When before the Commission, he said that he used a flame-light in making the monthly examination of the waste, the first time he took a safety-lamp, Nelson laughed at him and told him that he (Nelson) always went with a naked light (Q. 11733); yet the next day Morrison said, "I did not go to the 4th Right with my flame-light" (Q. 11880, Commission). Respecting the examinations of the 1th Right Waste after the 19th of July, Morrison states that a few men went at work there up to about 7, 8, or 9, days before the disaster; these men were withdrawn, and the props taken out in order to let the roof fall, and he went in the next day to see if the roof had fallen, for his own satisfaction (pp. 16, 17, Inquest). Mr. Rogers, after having had an opportunity to refer to various records, stated that the date on which the men were withdrawn from the 4th Right pillars, and the place was fenced, was the 28th of July (p. 45, Inquest), so that the examination which Morrison made the day after the men were withdrawn would be that of the 30th of July already referred to. But, in his account of the examination made "about seven days before the disaster," Morrison states consistently, in spite of cross-examination, to the statement that he went in with a safety-lamp (pp. 17, 18, Inquest), whereas he had previously asserted, with almost equal assurance, that he had only a naked light with him when examining at the 19th of July (pp. 16, 17, Inquest). (Qs. 11732-3, Commission). It therefore appears probable to the Commission that Morrison has confounded in his memory the circumstances of two examinations, that made on the day after the men were withdrawn (19th of July), and another which he seems to have made about the 28th of July.

67. As to whether, when he examined the 4th Right Goaf about the 24th of July, Morrison made the usual test for fire-damp with his safety-lamp, the evidence is not absolutely definite. He said several times that he went in to see if the roof had fallen (pp. 16, 17, Inquest), that he went inside the fence; found there had been a light fall, but did not go on top of the fall (p. 16, Inquest). He was not supposed to go inside the place; but he did so, to see how the roof had fallen (pp. 16, 18, Inquest). It was on this occasion that he found black-damp (p. 18, Inquest). It would, considering all the evidence, appear to be probable that, on this occasion, Morrison's sole object in visiting the 4th Right was to ascertain whether the roof had fallen, and that he did not test for gas, though, if any large quantity had been present, it would have forced itself on his attention by the effect it would have had on his light. It might, however, have been possible for less than 24 p.m. out of gas to be present in the air at that part of the mine, and not be discovered by Morrison.

68. In addition to making the examinations of the 4th Right already described, Morrison states (p. 18, Inquest) that he went there with a safety-lamp on the 30th and 31st of July (the latter was the day of the disaster), but there is much doubt whether this was really an examination of the waste or merely an examination of the road leading to the waste (pp. 15, 16, Inquest).

69. The Commission now turn to the conclusion that, not only were the wastes not examined once a week as required, by the Rules, but even the monthly examinations, being made with naked lights, were of no use for the purpose of detecting the possible danger of the presence of a small percentage of fire-damp, and it is very doubtful whether the examinations made on the 24th, 30th, and 31st, can be considered to amount to a virtual compliance with the Rule.

70. The conclusion reached by the Commission as to how the disaster was caused, however, is consistent with the presence of fire-damp in the higher parts of the goaf, not in the 4th Right Road; and it was clearly not incumbent upon Morrison, nor could it be expected of him, that he should (on the 18th of July) go under a large area of roof from which the people had been withdrawn, or (on the 24th, 25th, or 26th) that he should, in order to make his examination, go over the $2\frac{1}{2}$ feet fall, in view of the fact that the whole of the stow was hanging and likely to come down at any moment. It does not appear probable, therefore, that, even if the stow had been carefully tested once a week with a safety-lamp, the disaster would have been averted.

71. Whilst the Commission consider that Mr Rogers has been guilty of a grave irregularity in allowing the provisions of Special Rule 10 to remain unenforced, and thus permitting so far and ineffective a series of examinations of this particular waste, still they cannot say that this irregularity actually contributed to the disaster. And, however exactly weekly examinations might have been carried out in conformity with the rule, it is almost clearly clear from all the evidence that, in the making of all such examinations, the presence of fire-damp, or any appreciable element of danger, was so far ignored that there would have been hardly any, if any, difference between the weekly examinations and those which Morrison did actually make. The repetition of the mine, as one fire from gas, led to this mode of action. All other possible sources of danger were kept in view: but gas, though no doubt not quite forgotten, became a relatively remote consideration. In a grave degree this appears to be the fault of the system, provided by law for the detection of gas (more verbal repeating on the part of miners who discover it, and tests made only with the safety-lamp), and of the law which allows many mines, even though known to be giving off some gas, to be worked with naked lights. What, in the opinion of the Commission, is the obvious remedy is suggested in the next section of this report. In connection with this subject, the Commission think it is much to be regretted that the fact that Special Rule 10 was not being observed escaped the notice of the Government Inspectors, whose duty it was to see that the Rules were properly carried out and to draw the Manager's attention to any omission, and also to report it to the Chief Inspector for such action as he might consider necessary. If the Inspectors had made the discovery, and had carried out their duties properly in this respect, the misinterpretation of the Rule would have been pointed out to Mr Rogers, and he would, the Commission are sure, have taken steps at once to see that it was strictly observed.

72. The Commission cannot, however, leave this subject without drawing attention to a serious defect in the method of making the regular examination of the goafs, and the use of naked lights in doing so. This, though, strictly speaking, within the limits of the law, is a reprehensible practice, and the Commission have, therefore, included among their recommendations one to the effect that all examinations in mines, including those worked with naked lights, be made with safety-lamps.

73. At this point the Commission would draw attention to the fact that, up to quite recently, the examination of mines has been singularly neglected in mining legislation: in fact, until the report of the Court of Investigation into the Stockton Accident, in 1897, containing certain recommendations on the subject, brought it prominently under the notice of the Department, it was a question that was generally ignored. This Commission, seeing its great importance in relation to safety from explosions ("goafs" being liable to act as most dangerous reservoirs of undischarged fire-damp and other explosive or noxious gases), now strongly urge legislation on this subject (see suggestion No. 4, post).

Alleged Breaches of the Law.

74. During the course of the Inquiry a number of instances were made as to alleged breaches of the Mining Act or of the Rules framed thereunder, in addition to that mentioned in the preceding paragraph. It was not suggested, however, that any of these failures to observe the law contributed to the explosion. Most of the statements referred to may be dismissed from consideration so far as they are as to

nature of charges directed against persons now dead—victims of the disaster. But the statements of four witnesses refer directly to David Evans, who was a deputy of Mr. Kemble before the explosion; and, in a second matter, there are the statements of Mr. Rogers and Deputy Morrison with reference to their own actions. These are treated in order, but cannot be absolutely separated.

23. 1st. Regarding David Evans: in paragraph 48 of this Report the evidence of witnesses Boardman, Smith, Sells, and Brewster, is quoted; and each of them testifies that the discovery of gas was reported to Evans, who, at the Inquest, had stated that no report of gas had been made for the past five years. Brewster's evidence may be put on one side, as it refers to something that occurred ten years ago, and Evans admitted at the Inquest that the discovery of gas was reported to him ten years ago, and says that he reported it in a book in accordance with the law. Not much reliance can be placed on Boardman's statements, on account of their petty and contradictory nature. They are denied by Hopkins and by Evans, and may fairly be dismissed from consideration. The evidence of Sells and Smith refers to reports said to have been made to Evans, eight and six months respectively before the disaster, as to the discovery of gas; but in each case the gas was lit by the miners' lamps on their return to the face after firing powder-shots; except on one occasion, when Sells says that Evans expressed the opinion that something coming from the coal was gas. On the whole, the Commission is inclined to the belief that Evans was rather lax in his treatment of what information he did receive, information that should have put him upon diligent inquiry as to whether the mine was or was not giving off gas in sufficient quantity to be a possible cause of danger. He seems to have been indolent, and to have been only too ready to disregard anything which might tend to dispel, the prevailing and almost universally accepted impression that Mt. Kemble was a mine practically free from fire-lamp. He may have believed, but he could not possibly be certain, that the gas, the lighting of which was reported on following shots, was "powder smoke"; but his expressions, narrated by the witnesses, do not bear the construction that he felt by any means sound of this. Even by itself, and much more so when coupled with such a very suggestive phenomenon as a buzzing or humming of sometimes from the coal, the reported lighting of gas should have put him on inquiry, which he does not appear to have made; and he certainly should have acquainted the Manager with what he had been told, and what he had himself noticed; yet this too he seems to have neglected. If the occurrence was important within the meaning of Special Rule 11, which reads thus—

In the Under-Manager's absence, he (the Deputy) is empowered to act on his behalf and shall report any reported occurrence, death-injury, or violation of rules on the part of any employee, to the Manager or Overman. In the absence of a Lamp-keeper, he shall see to the condition of any safety lamp that may be in use in special cases, and so that he shall carry out the instructions of the Manager or Under-Manager.

he should have reported it to the Manager; although it is rather difficult for anyone, and it may have been specially so for Evans, to understand exactly what this rule does mean. But, apart from any special provision, common-sense dictates to a Deputy the propriety of informing someone higher in authority of any occurrence that may suggest danger from explosive gas, especially in a mine worked with naked lights. It is impossible to say that any more vigilance on Evans' part would have led to the adoption of means whereby the catastrophe might have been averted; probably it would not; probably nothing would have resulted beyond perhaps a little more constant attention to the matter; still, Evans' laxity was a factor in the conduct of the mine which calls for comment.

24. It is painful to question the conduct of other officials when the disaster has deprived of the power of vindicating their actions. But, if Evans' too easy mode of doing his duty was a prevalent feature in the management, a conclusion to which the evidence would appear to point, this is a state of things very much to be deplored, and one that seems to reflect upon Mr. Rogers in his position as Manager. But, though the Commission cannot but suspect that greater vigilance in connection with this one most vital question of fire-damp ought to have been exercised, and enforced at headquarters, the Commission do not think they can severally draw the conclusion that, in the then history of mine explosions and the accepted mode of regarding precautions, a change to the use of safety-lamps would have resulted from a fuller recognition

recognition of the possible danger of explosion. This giving up of naked lights is the only change in management that would have been likely to avoid the disaster; it can be said with almost absolute certainty that it would have prevented it. But all concerned—the officers of the mine, from the Manager down, as well as miners and workmen—were living in what the event proved to be a fool's paradise. The tradition of immunity from accident for many years, the universal belief—it might almost be called *faith*—in the exceptional safety of the mine; the fixed idea that the comparatively new furnace shaft, constructed at great cost, had power more than enough to sweep away any little gas that such a harmless seam might happen occasionally to give off, even though the workings extended into it further than they yet had gone; the atmosphere of confidence in which he moved, never doubting that it was well founded, explains Mr. Rogers' mental condition of security, leading to laxity of control. It is the opinion of the Commission that, from his own point of view, he was under the honest belief that he was doing his duty well, that he was managing the mine to what seemed to him to be the very best of his ability; and that, when the awful blow fell, it was to him a horrible surprise, beyond his power to explain. He cannot, in the light of what he then saw and heard, have avoided the impression, certainly at the first, that there had been a gas explosion, whatever he may have imagined of a later stage, by way of explanation of the disaster; but neither he nor anyone else—no Inspector, scarcely, who knew the mine, personally or by report—dreamed beforehand of the possibility of a gas or dust explosion in Mount Kembla Colliery; and, as the Commission find, the combination of circumstances, including the quite unlooked-for accumulation of gas, was so peculiar and unprecedented as to be almost beyond the reach of the clearest foresight: no one could be expected to anticipate that so many unforeseen conditions would exactly fit together to lead to so terrible a result. Therefore, on the question of want of diligence in dealing generally with the search for gas, the Commission cannot go so far as to say that either Deputy Evans or Mr. Rogers, the two on whom alone a suggestion of culpability in this relation might possibly be supposed to fall, is to blame for the disaster, or that any negligence of theirs actually contributed to its cause.

27. 2nd. Regarding Mr. Rogers and Mr. Morrison—Standing Places not examined in Daily Inspections.—At the time when attention was specially directed to the No. 1 Right Back—Heading face as the locality where the explosion originated, particular interest naturally attached to the fact whether or not that place, and the face of the Front Heading, had been regularly and properly examined for the presence of inflammable gas. Mr. Rogers was questioned at the Coroner's Inquiry, and stated (vide pp. 40, 41, Inquest) :—

Morrison reported up to the faces at the very end of No. 1 Right. . . . We had examined the two faces right up to the end of No. 1 Right on the morning of the 21st of July. The faces at about 30 or 40 yards from the entrance here. . . . That 30 or 40 yards would not be reported as the meaning of the 21st of July, he supposed. . . . There was no reason for not inspecting the 30 or 40 yards beyond the faces at the top of No. 1 Right, except that there were no men working there.

The faces at the top of No. 1 Right was just where location there was no one working up there; the heading was up to the face of that place. . . . No 1 heading had been standing for six or eight months because it was far enough for the air to draught. . . . to go into it.

28. Mr. Morrison, the Deputy in whose district these two headings are situated, admitted (Qs. 11250-11253, 11743, Commission) that Mr. Rogers' evidence, as quoted above, was correct. He stated, further, that he had only once been up beyond the faces across these headings (Qs. 11250-2) and that was some weeks before the disaster, when he had just newly started as Deputy. [Note.—Morrison was appointed as Deputy nine weeks before the disaster.] Nelson, the Under Manager, however, Morrison stated, told the latter on the 21st of July that he had examined these headings on the 19th.

It was understood, Morrison said, that he had not to examine the place. His examination was the examination of the working places; the man who was there before him did not examine it; and this man showed Morrison how to examine the place. These two facts led him to believe that he had not to examine that place (Q. 11277).

When his attention was drawn to Special Rule 3 (vide p. 63, Inquest) Morrison said he was authorized by Mr. Nelson when he first started not to make a report on any place except the working places (Q. 11448). From the date of his appointment

appointment to the date of the disaster he (Morrison) never, in the morning examination, reported any place that was not being worked (Q 31432). There were nine or ten places in the No. 1 Right District not being worked, which he did not examine. He would not admit that, because he had not examined those standing places, he had failed to carry out his duty under Special Rule 9, because he had examined all the "working places" (Q 31438). He did not know anybody who was supposed to examine standing places (Q 31439). These places would not be examined when he examined the old workings (wastes). He was told what to examine. He had no instructions to examine those places (Qs 31734-31740, 31829-31838, 31880-31903, Commission).

79. Mr. W. Hay, Clerk and Weighman at Mount Kembla, stated to the Commission that, being desirous of obtaining experience in the detection of gas before submitting himself for examination, he went with Mr. Nelson on his inspection on a pay Saturday, when the furnace was out, and the ventilation, consequently, at its poorest, to try to find gas. They went to the highest portions of the mine—among others, to the No. 1 Right—but found none (Qs 21341-31346). Mr. Hay was in some confusion as to the date; but it was between the 18th and 19th of July.

80. Mr. Rogers, when examined before the Commission, stated: That Hay asked his permission to go round with Nelson looking for gas, and afterwards informed him that they had been to a number of places, of which No. 1 Right was one (Qs 22515-8, 22592-3, 22613-22619).

This inspection, however, said to have been made by Mr. Hay, does not appear in any report; and the Commission are very doubtful as to whether there has not been a mistake about it—whether such an examination was actually made at that particular place or not. But, even if it did take place, it would be of such a casual nature as by no means to comply with the practice which, whether it can be said to be prescribed by any special rule or not, the Commission are strongly of opinion should be made compulsory, namely that these standing places should be examined daily.

Questioned as to his knowledge of Morrison's practice in making examinations, Mr. Rogers stated that "Morrison would not examine only working faces. That is the Deputy's practice, to examine all working faces." The places not working would be examined when the monthly examination was made. That would not be the only time when such a place would be examined. The Underground Manager would go there to examine it, and perhaps he (Mr. Rogers) would go there to examine it. The Under Manager would go there on making his rounds—there was no rule about it. They had no stipulated time when such places would be examined. (Qs 22822-22833, 22744-22750.)

81. Special Rule No. 9 of Mount Kembla Colliery reads as follows:—

He (meaning the Deputy) shall make a true report of, and enter and sign daily in a book, the state of the mine made, down, stoppings, best air, fire, and ventilating appliances, and shall occasionally during his shift inspect the working faces, roads, down, bottom, and ventilating appliances.

82. This rule, carefully read, contains no subject for examination the faces of what are called "standing places,"—i.e., places that are temporarily, or even permanently, put out of work, lying on the intake side of, or otherwise practically associated with, actual working places. Considering the collocation and order of the words, and in the light of common-sense, such places, especially where, for some reason, the air is actually led past the face by leading on its way to working places, would appear to be included; and it would naturally be supposed that any ordinary intelligent man would so read the rule. Further, even if he did not read the rule to expressly include such places, it would, in the exercise of his general duty (which requires him to apply to his work reasonable care and intelligence), be incumbent on any officer having charge in or of a mine to exercise as much real as constant vigilance in inspecting a face past which intake air is led, as supposed to be led, as would be proper in seeing to an actual working face. The Commission cannot but characterise the omission to make a daily examination of such faces as at least very bad management, and they regret to have found the practice prevailing at Mount Kembla. The Rule, however, is so vaguely worded that it may well be mis-read;

mile-read; and perhaps some competent authorship would even hold that the reading here condensed, excluding such standing faces, was, on the wording, the current one. Certainly Deputies might actually be misled by the Rule, acting under the illogical belief that what is not specifically prescribed is therefore, though obviously expedient, not to be done. These considerations may have some little weight in justification of the stupid course adopted at Mount Kembla. At any rate, the Commission, holding on this point a strong opinion, not only that the Rule should have clearly expressed what the Commission believe it intended, but that it should be given what may be called the primary force of law, instead of being left for adoption as a Special Rule at the choice of the Management or of the Department, have made the recommendation to be found on paragraph 108 of this Report.

83. So far as the disaster is concerned, however, the Commission, finding, as they do, that the initial explosion was at the 4th Right Junction, and seeing no reason to suppose another gas explosion at the fact of No. 1 Back flooding, do not find any direct connection between the practice they are here condemning and the catastrophe itself.

Prevention of Colliery Explosions in Future.

84. The terms of the instructions issued to the Commission lay upon them the duty of reporting how such explosions can be averted in future; and, in considering this question, the first point that strikes the Commission is that a serious explosion of fire-damp occurred in a mine which was generally believed to be free from such inflammable gas. Though many miners now come forward and say that they have seen fire-damp in the mine, several of them admit that they did not report the fact; some giving as the reason for such culpable neglect that they did not consider the quantity they saw was dangerous, others giving no reason at all. This terrible disaster emphasises the conclusion, to which other similar accidents in this State, as well as elsewhere, have pointed, that no quantity of fire-damp, however small, given off in a mine can be neglected with impunity. It would also seem that, though reports are said to have been made to officials that gas had been seen, the information was not passed on to the management, on whom lay the responsibility of taking steps to minimise the obvious possible danger. The weakness in the present state of the law, which operates only through special rules made by each mine, appears to be that reports made to officials need, at present, be only verbal; and the persons who make them have no means of knowing whether they are recorded in the report-books as provided by law, or otherwise brought before the Manager; while the Manager has no means of knowing that gas has been discovered, unless it is recorded in the Deputies' report-books. In order to bridge this gap, the Commission have included amongst their recommendations one to the effect that miners who discover gas, no matter how small a quantity, shall be required to make a verbal report of the fact to the nearest official, and then to go and make a written report in a book kept for the purpose. So that as much facility as possible may be afforded to miners to do this, it is recommended that books for this purpose be kept at each Deputy's cabin underground. It is further recommended that any official to whom such report may be made shall communicate the fact to the Manager or Under-manager by the quickest available means (by the mine telephone, or by messenger, or personally), and that the written report shall afterwards be shown to the Manager. If this recommendation be adopted, it should not be possible for a mine to give off fire-damp in such quantities as to be fatal on the notice of the miners without the Management also being aware of it; especially if a substantial penalty be provided for a breach of the law in this respect.

85. Another weak point in the practice is that, in the official inspections of coal mines, the duty of searching for fire-damp, the most important duty of the Deputies in relation to the safety of life and property, is carried out with an instrument (the safety-lamp) which will not, generally, detect the presence in the air of the mine of a proportion of fire-damp less than 2½ per cent (some of the best lamps, however, with mineral oil, will detect as low as 1½ per cent), whereas this disaster proves (as several explosions have shown before) that a much less proportion than this may be given off regularly, and may not be discovered because of the

unsafety

inability of the ordinary safety-lamp to detect it; but yet that this small proportion may, under favourable circumstances (which are bound to occur, some time or other, even in the best-managed collieries), accumulate, and be a source of serious danger. In the hydrogen-lamp, science has provided an instrument so delicately sensitive that, not only will it detect with certainty a proportion of fire-damp in the air as low as 5 per cent. ($\frac{1}{20}$ per cent.), but that with it a well-trained observer may detect even a proportion of .40 per cent. ($\frac{1}{25}$ per cent.). There are, however, several very good reasons why this lamp could not be recommended for ordinary every-day use in mines; the principal being that, in the hands of any person, however careful, but more particularly one not specially trained to its use, it may become a greater danger to life and to others in the mine than the gas for which he is searching. The hydrogen with which the lamp is supplied is stored in a cylinder at a pressure of 1,200 lb. to the square inch, and is highly inflammable; and a slight turn too much of the screw which regulates the flow would allow the hydrogen to escape in such a quantity as might, with the great pressure behind it, force the flame through the gauze of the lamp, and so at once, if the fire-lamp for which search was being made were present, cause an explosion. Other reasons against the every-day use of the lamp are the high cost of the hydrogen, the fact that supplies cannot at present be obtained in America, and the great difficulty of obtaining them by importation. Nor do the Commission think it necessary that the ordinary connections for gas should be made with the hydrogen-lamp: for ordinary purposes the safety-lamp is considered by all authorities to be sufficiently sensitive. But the Commission do, after mature consideration, strongly recommend that the management of every mine be required to have as many as 30 separate tests made, at least once in every three months, with a hydrogen-lamp, in the principal winning-out headings, waste workings, and retura always: such tests to be made by a competent person or persons, appointed in writing by the Manager for the purpose, who shall report the results of each test and the places where they have been made in a book to be kept for the purpose.

88. If these two recommendations be made law the Commission are confident that it will not be possible for gas to be given off regularly in any mine without its presence being detected.

87. There is a further consideration of great importance to which this disaster will direct the special attention of everyone who studies the evidence; and that is the great danger inherent in the practice of using naked lights in coal-mines, even though, according to ordinary acceptation, they are not of the class known among mining people as "gassy" mines. Too much reliance would seem to have been placed in most mines on the non-detection of gas in the usual examination with the safety-lamp, or on the fact that it was only occasionally so detected; and it has hitherto been the practice, both here and in Great Britain, to use open lights not only in any mine where fire-damp could not be discovered by means of the safety-lamp, but even in mines where it has been so discovered. The Commission believe that the most valuable lesson to be learned from this disaster, which resulted in the loss, in one day, of 91 lives, is that the use of naked lights should not be allowed, under any circumstances, in any mine where any quantity of fire-damp, however small, has been discovered, whether by safety or hydrogen lamp, or in any other way. Such a mine should, in the opinion of the Commission, be treated as a "gassy" mine. The Commission recognize that a change in the law to this effect would be considered by many in the mining profession to be a drastic one, but they are convinced that to provide any less comprehensive rule would be simply paltering with an evil which has lain at the root of many appalling disasters.

87A. The Commission are much impressed with the necessity for the ventilation of mines to be sufficiently ample, not merely to sustain life in the mine, but also to thoroughly dilute and quickly carry off any inflammable or noxious gas—indeed, the Commission regard the latter as the more important consideration. In their recommendation on this subject (Suggestion No. 5) the Commission recommend that the minimum supply of air shall be 150 cubic feet instead of 100 cubic feet *per man*, as at present; but they regard it as important that this minimum should not be looked upon, as it often is in effect, as the maximum, and that the attention of Inspectors of Mines should be specially drawn to the necessity for their insisting upon an "adequate amount of ventilation," i.e., adequate to effectively dilute and remove dangerous gases.

88. At present the Coal Mines Regulation Act permits the use of gunpowder in all mines; the only restrictions being that gunpowder shots may not be fired in places which are dry and dusty, unless the places are first watered, and that they may not be fired in any place, if gas has been reported to have been found in the same ventilating district, until that gas has been cleared away. Though no one has suggested, and the Commission do not find, that the fact that gunpowder was used in Mount Kemble had any connection with this disaster, they certainly think the practice of blasting with gunpowder in any mine which is not naturally wet, and also free from inflammable gas, is fraught with grave dangers. The evidence of the witnesses called by Mr. Lynght shows that, when charges of gunpowder are fired, and merely crack, without developing the coal, the imperfect combustion of the powder results in the generation of a volume of inflammable gas. Then, on the miners returning to the working place and holding their lights to the face of the coal, in order to see what work the charge has done, the gas, issuing from the cracks, lights with a face that might easily, under favorable circumstances, prove to be the cause of a serious explosion. Further, the experiments made in the presence of the Commission at Helensburgh showed, most clearly, that the usual charge of gunpowder, 8 ounces, when it blows out, throws a large volume of flame at a great heat into the air of the working place; and that, when there is coal-dust in suspension in the air, an ignition will, almost certainly, be caused, which may also prove the starting point of a grave disaster. The Commission therefore propose, in the list of recommendations given at the end of this report, that the use of gunpowder be absolutely prohibited in all mines unless they are (1) naturally wet, and (2) free throughout from inflammable gas. The Commission further recommend, among other provisions, (a) that only such explosives as are, for the time being, included in the English list of "Permitted Explosives" (i.e., explosives so nearly harmless as have yet been invented) shall be allowed to be used in mines which are not both (1) naturally wet, and (2) free throughout from inflammable gas; (b) that in such mines explosive charges shall not be fired by any person other than a certificated Deputy and Shot-teen, appointed in writing by the Manager of the mine for the purpose; and (c) that, in such mines, the roof, sides, and floor, of the place where the charge is to be fired shall first be thoroughly saturated with water within a radius of 20 yards from the shot-hole (provided that, where the roof may be injured by watering, and if the Chief Inspector of Coal Mines consents, the roof may be thoroughly brushed free from dust instead of being watered).

89. Another important factor in relation to the safe working of mines, viz., the necessity for the proper ventilation, and frequent careful examination of the state of, and the workings, has been specially referred to in a preceding paragraph of this Report.

90. Among the suggestions made by the Ilkley Miners' Association are two, on the subject of doors in mines, which have an important bearing on the question of the prevention of disasters. As the due ventilation of a mine is one of the most important conditions of safety, particularly in relation to the dilution and carrying off of inflammable gases, and as the ventilation entirely depends on the keeping closed of doors provided to prevent its taking wrong courses, it is especially necessary that every possible precaution should be adopted—(1st) to ensure the immediate closing of doors after they have been opened, and (2nd) to prevent the temporary checking of the flow of a main intake current of air by the opening of a door which closes the passage connecting it with a return. In the latter case there is an instantaneous tendency to short-circuit; and any continuance of the opening, whether accidental or otherwise, may seriously affect the ventilation. This risk would, clearly, be much reduced, and the instantaneous diversion of the ventilation due to the mere opening and closing of the door would be quite obviated, by the adoption of what may be called the "air-lock" system of double doors, which is in use in nearly every really well-managed mine. With this system, no short-circuiting can begin unless both doors are open at once; and the Commission are strongly of opinion that it is time that there should be legal compulsion to adopt it. Perhaps the reason for its not having, long before this, been made the subject of legislation is that it was assumed that, as a matter of course, every mine of any extent would adopt it. But experience unfortunately shows that this is not the case. The Commission regret to have to call attention to the fact that, in Mount Kemble Mine itself, in this respect, the management failed to a very noticeable extent.

91. As to the former question—the securing of the closing of every door immediately after use—the expediency of making this closing automatic has been questioned on very good authority, as it has been contended that the individual feeling of responsibility among workmen is thereby reduced. One of the most important coal mines in Australia (and a very fiery one) has been successfully managed for about 14 years without the introduction of the automatic closing system, which has been deliberately, and with very satisfactory results, rejected. Mr. Robertson has gone double as to the expediency of making the system compulsory; but the Commission have, on the whole, come to the conclusion that it will be wiser to make it so, and have attempted to do away with any idea that the fact that a door is supposed to close itself lessens personal responsibility, by the recommendation of a slight variation in the wording of a suggested regulation, the original of which is to be found among the Special Rules of certain collieries, adopted since this disaster occurred.

92. The Commission have also included, among the suggestions which follow, recommendations which, if brought into operation, will (a) have the effect of raising the standard of Managers and Under-Managers, by providing that, in future, no person can obtain the necessary certificate for such a position except by proving his competency by examination; will (b), the Commission believe, evoke a greater feeling of personal responsibility in mine officials, by providing a sure and certain method by which any person, whether Inspector or miner, may have the conduct or competency of an official investigated on making a bona fide complaint; and will (c) enable Inspectors of Mines to take official cognisance of any matter in which they may consider a mine or its management to be defective—a provision that is not in the present Act. The Commission feel confident that these recommendations, together with the very important propositions dealt with in the preceding paragraphs of this section of their report, will, if given the form of law, as they strongly urge should be done, go very far indeed to reduce the number of avoidable accidents or explosions in Coal Mines.

93. With reference to this subject, the Commission desire to point out that, though a great step in advance will be taken if these recommendations, as to the use of safety-lamps in mines in which any quantity of fire-damp, however small, is given off, and as to the prohibition of the use of gunpowder in such mines, be adopted, there is yet one question of vital importance to be considered. According to Rule 7, where a mine official finds that, by reason of the presence of inflammable gases, a mine or part of a mine is dangerous, the workmen shall be withdrawn, and the question is—What constitutes a dangerous percentage of gas-damp in the air of a mine? On this point opinions differ, as the different conditions of various mines must be taken into account in arriving at any conclusion, and there is no preponderance of opinion in favour of any particular percentage. Under these circumstances, though the subject has been discussed to some extent in various mining communities already, the Commission suggest for the consideration of the Department that a conference of experts be invited to consider and report upon the matter. Even though, possibly, no direct conclusion might be arrived at by the Conference, the Commission feel sure that it would have, indirectly, a good effect, by specially drawing the attention of all mining officials to the importance of the question, and to the great personal responsibility placed upon them by the fact that the Act, as it at present stands, leaves the matter entirely to their individual judgment.

Recommendations affecting the General Management of Coal Mines—Suggestions as to the Amendment of the Law.

94. As briefly mentioned earlier in this Report, Mr. Lewt, the miners' representative before the Commission, brought forward a number of recommendations printed by the Miners' Associations of the Illawarra, Newcastle, and Lithgow Districts, for the amendment of the present Coal Mines Regulation Act. Some of the witnesses also brought under notice matters which they considered required attention; and Mr. Atkinson prepared a number of suggestions, the most important of which was one for the amendment of General Rule 12, respecting the use of explosives in mines. The Commission themselves have also noticed, in the course of the evidence, a number of directions in which the law might, with great advantage, be altered.

85. Owing to the great length which this report has necessarily reached, the Commission will now merely state the nature of the various suggestions and by whom they were made, and will then give, in the form of recommendations, the conclusions at which they have arrived: without trespassing too on the time or arguments bearing on the proposals—closely set out in the evidence. The convenience of reference the suggestions are numbered; and, when an amendment of a clause of the Act is recommended, the clause is copied in ordinary type, words that the Commission recommend to be omitted are italicized through, and words which the Commission recommend to be inserted are shown in capital letters. They are as follow:—

SUGGESTION No. 1.

From **ILLAWARRA DISTRICT MINERS:**

Managers, Under-managers, Deputies, and Shot-firers to hold Certificates of Competency by examination, and to have had five years' practical mining experience, before being eligible for respective positions.

Newcastle District Miners agree, and suggest addition of—

"All the examinations have to be passed in the State of New South Wales."

86. *As to Managers and Under-managers*, the Commission recommend:—

(a) that no more Certificates of Service should be issued,

(b) that Service Certificates held by persons who have never yet held positions under those certificates should be cancelled.

87. If this recommendation be approved, the following is suggested as a suitable clause to insert in the Act to effect the object desired:—

Any Certificate of Service, either as Manager or Under-manager, which may be on the register at the time of the passing of this Amending Act, shall, at the expiration of (3 months from the said date, be cancelled and removed from the register, unless the holder thereof shall, before that date, have passed, in the satisfaction of the Board constituted by section 5 of the Principal Act, Test by law, legitimate, and bona fide, occupied the position and executed the functions of a Manager or Under-manager of a mine in New South Wales since passing, and by virtue of, such Certificate of Service.

88. Consequent on the foregoing recommendation, Section 8 (and all its sub-sections) shall be omitted from the Act.

89. *As to Deputies and Shot-firers*, the Commission recommend:—

That Deputies and Shot-firers be required to hold certificates of competency gained by examination, such examination to be mining practical and oral, and that, as the law provides that they shall make written reports as to the performance of their daily duties, they be required to be able to write legibly.

90. If this recommendation be approved, the following amendment of Section 6 will be necessary:—

(1) There shall be three descriptions of certificates of competency under this Act:—(1) first class certificates, that is to say, certificates of fitness to be Managers, (2) second class certificates, that is to say, certificates of fitness to be Under-managers, and (3) THIRD-CLASS CERTIFICATES, THAT IS TO SAY, CERTIFICATES OF COMPETENCY FOR THE COMBINED POSITION OF DEPUTY AND SHOT-FIRER: but no person shall be entitled to a certificate of competency under this Act unless he has had practical experience in a mine for at least five years.

91. While dealing with this subject of Certification of Competency, the Commission desire to also recommend that section 7 be amended as under, and that an addition be made to it, as shown, to provide for the recognition in New South Wales of Certificates of Competency gained elsewhere in the British Empire, provided that the standard of examination is equal to that required in this State:—

The Minister may ON THE RECOMMENDATION OF THE BOARD make, alter, and cancel, rules as to the places and times of examination of applicants for certificates of competency under this Act, the number and appointment of the examiners and the fees to be paid by the applicants so that the fees do not exceed those specified in the Third Schedule to this Act. Every such rule shall be observed by the Board appointed under this Act.

THE MINISTER SHALL, IF RECOMMENDED BY THE BOARD FOR APPOINTING EXAMINERS, ACCEPT FOR REGISTRATION IN NEW SOUTH WALES, IN LIEU OF A CERTIFICATE FOR ANY OFFICIAL POSITION IN A MINE THAT MAY BE GRANTED UNDER THIS ACT, ANY CERTIFICATE OF COMPETENCY ISSUED IN GREAT BRITAIN OR ANY OF ITS DEPENDENCIES FOR A SIMILAR POSITION RESPECTIVELY, WHETHER

WHETHER AS MANAGER, UNDERMANAGER, OR ANY OTHER OFFICER, IN COAL OR SHALE MINES: PROVIDED THAT, IN CASE OF A CERTIFICATE ISSUED IN A DEPENDENCY, IT SHALL BE PROVED TO THE SATISFACTION OF THE BOARD THAT THE STANDARD OF COMPETENCY REQUIRED TO BE ATTAINED IN SUCH DEPENDENCY IS PRACTICALLY EQUAL TO THE STANDARD REQUIRED TO BE ATTAINED IN NEW SOUTH WALES.

102. As an amendment following necessarily on the above, the Commission recommended that section 3, subsection 2, be altered as follows:—

A register of the holders of certificates of competency or status under this Act and under any of the dependent Acts attached, OR SUCH OTHER CERTIFICATES OF COMPETENCY AS MAY BE APPROVED BY THE BOARD FOR APPOINTING EXAMINERS, AS PROVIDED BY SECTION (7), within the State, shall be kept by such person and in such manner as the Minister directs.

SUGGESTION No. 2.

From New South Wales District Miners:—

The Miners to be vested with absolute power to order the use of safety-lamps.

Newcastle District miners are opposed to this as it stands, but suggest that, where a doubt exists about safety-lamps going into a mine, the Inspector and District Check-Inspector should appoint a third party, the three persons named to be an Arbitration Court, to settle the question whether safety-lamps are to go into the mine or not.

103. The Commission recommended, in connection with this suggestion, that General Rule 5 be amended as under:—

No lamp is light other than a tested safety lamp, OF A PATTERN APPROVED BY THE CHIEF INSPECTOR OF COAL MINES, and is allowed or used:—

(a) in any place in a mine in which there is likely to be any such quantity of inflammable gas as to render the usual safety-lamp dangerous in any mine in which any quantity however small, of inflammable gas has been given off within the previous six months;

(b) in any working depending upon a place in which there is likely to be an accumulation of inflammable gas in any workings which is within 50 yards of, and is being advanced towards, any locality where it is doubtful whether or not there may be an accumulation of inflammable gas or in any place in the same ventilating district on the return airway side of such working.

BUT THE CHIEF INSPECTOR OF COAL MINES SHALL HAVE THE POWER TO DIRECT THAT SAFETY-LAMPS ONLY SHALL BE USED IN ANY MINE.

And where it is necessary to make the use of any part of a working district safe with safety-lamps, it shall not be allowed to work the coal with naked lights, or in other part of the same ventilating district situated between the place where such lamps are being used and the return airway.

Add to General Rule 5 the following:—

(c) IF ANY DISPUTE ARISES BETWEEN ANY OWNER, MANAGER OR AGENT OF ANY MINE, AND THE CHIEF INSPECTOR OF COAL MINES (AS TO WHETHER ANY PARTICULAR PATTERN OF SAFETY-LAMP SHOULD OR SHOULD NOT BE APPROVED FOR USE IN SUCH MINE OR (2) AS TO WHETHER THE MINE IS GIVING OFF, OR HAS WITHIN THE PREVIOUS SIX MONTHS, BEEN GIVING OFF, ANY QUANTITY, HOWEVER SMALL, OF INFLAMMABLE GAS, SUCH DISPUTE SHALL BE REFERRED TO ARBITRATION AS PROVIDED BY SECTION 26 OF THE ACT.

(d) WHERE THE CHIEF INSPECTOR OF COAL MINES DIRECTS THAT SAFETY-LAMPS BE USED IN ANY MINE WHERE INFLAMMABLE GAS HAS NOT BEEN DISCOVERED, AND THE OWNER, MANAGER, OR AGENT, OF SUCH MINE, VIOLATES THE PROHIBITION ON SUCH ORDER, THE QUESTION WHETHER IN VIEW OF THE SAFETY OF LIFE OR PROPERTY, IT IS EXPEDIENT THAT SUCH ORDER BE ENFORCED SHALL BE REFERRED TO ARBITRATION, AS PROVIDED BY SECTION 26 OF THE ACT, AND IN THE MEANTIME THE ORDER SHALL STAND GOOD, BUT THE MANAGER SHALL, ON APPEALATION WHICH HE MAY MAKE, IN A FORM TO BE PRESCRIBED,

- BE TEMPORARILY SUPPLIED BY THE DEPARTMENT WITH A SUFFICIENT NUMBER OF SAFETY LAMPS TO KEEP THE MINE GOING, AND FOR THE PROPER CARE AND SECURITY OF SUCH LAMPS MUST BE RESPONSIBLE, AND HE SHALL PAY A REASONABLE RENT FOR THEIR USE, TO BE FIXED BY REGULATION.
- (4) AFTER SAFETY LAMPS HAVE BEEN INTRODUCED INTO ANY MINE, NAKED LIGHTS SHALL NOT BE USED THEREIN WITHOUT THE SPECIAL PERMISSION OF THE CHIEF INSPECTOR OF COAL MINES; AND, IN THE CASE OF ANY DISPUTE BETWEEN THE MINE MANAGER, OR AGENT OF SUCH MINE, AND THE CHIEF INSPECTOR, SUCH DISPUTE SHALL BE REFERRED TO ARBITRATION, AS PROVIDED BY SECTION 25 OF THE ACT.
- (5) PROVIDED ALSO THAT IF THE CHIEF INSPECTOR OF COAL MINES APPROVES, NAKED LIGHTS MAY BE USED AT THE BOTTOM OF, AND IN THE MAIN HAULAGE ROADS WITHIN A RADIUS TO BE FIXED BY HIM NOT EXCEEDING 500 YARDS FROM THE DOWNCAST SHAFT OR THE MOUTH OF THE MAIN INTAKE TUNNEL.

SUGGESTION No. 2

From Illawarra District Miners:—

Verdiction by furnace should be prohibited, and that by fans substituted.

Newcastle District Miners agree.

104. The Commission recommends that the following provision be inserted in the Act:—

(1) It shall be imperative that, in the opening of any mine in the future, employing thirty men or more, the mine shall be ventilated by fans, unless specially exempted from the operation of this clause by the Chief Inspector of Coal Mines. Before the Chief Inspector grants such exemption, he shall satisfy himself that it would be safe to use a furnace. The following shall be the circumstances under which exemptions may be granted by the Chief Inspector:—

- (a) Where the amount of coal to be won may not warrant the expenditure required for the provision and erection of a fan;
 - (b) Where the physical configuration of the country renders it impracticable to install a fan;
 - (c) Where, from any cause whatever, the Chief Inspector is satisfied that there is a substantial deficiency in the way of using a fan instead of a furnace.
- (2) In respect to working mines employing thirty men or more, where, in the opinion of the Chief Inspector, the ventilation by furnace is considered as dangerous, he may order the substitution of a fan for a furnace, within a certain time to be fixed in such order. The owner, manager, or agent, of the mine to have the right to appeal to arbitration under Section 25 of the Act.

105. The Commission also recommends that provision be made, in any future legislation, to enable mine-owners to sink ventilating shafts on land under the control of the Water and Sewerage Board, and to put up the buildings and machinery necessary to be erected at such shafts. At present the Water and Sewerage Board refuse to grant permission for this to be done, though it is absolutely necessary if use is to be made of the vast beds of coal extending from the coast beneath the catchment area of the Sydney Water Supply, as it is impracticable to obtain sufficient ventilation to enable the mines to be worked a long distance in from the coastal slope of the Illawarra Range without the construction of ventilating shafts in the catchment area. The Commissioners consider that, with proper regulations, stringently enforced by the Water and Sewerage Board, there need be no fear of the pollution of the water-supply because of the existence of such ventilating shafts within the catchment area.

SUGGESTION No. 3

From Illawarra District Miners:—

Waste Workings to be absolutely sealed off, and surrounded by return airways (for fire of accidents), such return airways not to come in contact with intake.

Newcastle District Miners oppose this recommendation as impracticable.

106. In view of the varying constructions placed by different witnesses on the term "Waste Workings," the Commission recommends that it be defined, in the interpretation section of the Act, as follows:—

"Waste Workings" shall be taken to mean parts of the workings of any mine (1) where pillars have been extracted, whether the roof has fallen or not, and (2) workings that have been previously abandoned.

107. With respect to the suggestion itself, the Commission recommends that the following provisions be inserted in the Act:—

(1) In every mine worked on the Fiske and Reed system, waste workings shall, as far as practicable, be ventilated, and kept reasonably free from inflammable or noxious gases.

(2) As far as practicable, the ventilation of waste workings shall be from return airways only.

(3) If it is not practicable to ventilate Waste Workings from Return Airways, they may be ventilated from a separate intake airway.

(4) Provided that, when waste workings are ventilated from separate intake airways, notice of the fact shall be sent to the Chief Inspector (within a week), and that each notice shall describe the position of the intake and the mode of its construction.

(5) Subject to the provision of paragraph 3, all Waste Workings which are passed or planned by an Intake Airway shall be sealed off from such intake by brick or stone walls, not in excess of the sufficiency of such stappings to be subject to the approval of the Chief Inspector.

108. The Commission, having in view the liability of the examination of waste workings, as disclosed in the evidence, recommends that the following new sub-section, be added to General Rule 4:—

(a) As to inspection of waste workings.—A competent person or persons, not being a workman for getting minerals in the mine, holding a certificate of competency as Deputy and Not-free, shall, with a locked safety lamp, inspect, at least once a week every part of the waste workings which is safely accessible, and shall ascertain the condition thereof with respect to the presence of inflammable or noxious gas, ventilation, roof and sides, and general safety, and, whether such examination occupy one day or more or less than one day the examining official shall, before leaving the mine on each and every such day, make and sign a written report of such examination on a book to be kept at the mine for the purpose.

SUGGESTION No. 6.

From Ilwaco District Miners:—

All plans, except propelling drives, to have cut-throats, be not more than 30 yards apart.

Newcastle District Miners:—

All cut-throats to be not more than 30 yards

109. The Commission consider that it is impossible to make a hard and fast rule as to how close together cut-throats should be put, without creating serious difficulties in the management of mines generally, owing to the varying conditions, such as, for example, differences in thickness of seams, in depth of seams below the surface, in the crushing strength of the coal, in the lateral tendency of the coal to scale off, in the nature of the roof, and in the nature of the overburden. They cannot, therefore, endorse this suggestion.

SUGGESTION No. 6.

From Ilwaco District Miners:—

Inspection to be made with locked safety-lamp in all cases.

Newcastle District Miners agree with this.

110. The Commission recommend that the daily inspection of the working places, &c., and all other inspections provided for by the Coal Mines Regulation Act, should, in every case, in every mine, whether such mine be worked with naked lights or not, be required to be made with a locked safety-lamp (except where, as the Commission next recommend, they are required to be made with a hydrogen lamp).

SUGGESTION No. 7.

From Ilwaco District Miners:—

Monthly examinations and report should be made by District and District Inspector with hydrogen lamp.

Newcastle District Miners agree with this.

111. This suggestion, as made by the Ilwaco Miners' Association, was not very clear, but it transpired, in the course of the evidence submitted in its favour, that what was desired was that once every fortnight an examination of the whole of the

mine should be made with a hydrogen lamp, and that this duty should be carried out by a Deputy of the mine and the Government Inspector for the District alternately, so that each would make an inspection once a month. When it was pointed out that it would be dangerous to allow a hydrogen lamp to be taken into a mine by persons inexperienced in its use, the suggestion was altered to apply to Managers or Under-Managers and Government Inspectors.

112. The Commission, however, do not consider that it would, under present conditions, be practicable for the Government Inspector to comply with such a rule, nor do they think it would be reasonable to require the management to examine the whole of the mine in this way, but they are strongly of opinion that the hydrogen lamp should be more generally used in the future for the detection of fire-damp than it appears to have been up to the present. They therefore recommend that the following new clause be inserted in the Coal Mines Regulation Act:—

In every mine, a competent person or persons, appointed by writing by the Manager, shall make at least 30 tests (in all) once in every three months with the hydrogen flame in the principal working-out headings, waste workings, and return airways, and it shall be the duty of such person or persons to make a written report specifying the places where the tests are made, the date, and the results of the tests, in a book to be kept for this purpose.

113. The Commission consider that this, while not imposing an unnecessarily burdensome duty on the management of mines, would yet fully attain the object desired, viz., to ascertain whether fire-damp was being given off in the mine.

SUGGESTION No. 5.

From *Illawarra District Miners* :—

Minimum of 250 cubic feet of air per minute to be provided for every horse and of 150 as at present.

Newcastle District Miners :—Agreed to, and

did not less than 250 cubic feet of air per minute for each man and boy.

114. The Commission recommend that the following be inserted in the Act in place of General Rule 1:—

(a) In every mine which is in operation, whether any person employed therein shall be before ground or not, no amount of ventilation, by air drawn from a pure source shall be considered practicable except when the ventilation or demand supplying the working power shall be wholly or partially supplied the necessary supply of air drawn, adequate to drive and remove noxious and inflammable and noxious gases, from which or more arising, to such an extent that the air in all parts of the mine where horses or other animals are employed or permitted to be, for the purpose of working, travelling, or otherwise and in all stables where horses or other animals are kept, and also in all standing places on the surface and in any working place, shall be such as to prevent risk from inflammable gases in the mine, and wholesome and sufficient for the support of human and animal life.

(b) And, when any person or animal employed or kept in the mine is before ground for any lawful purpose, there shall supply to be such in the place in which each such person or animal shall be as not less than 250 cubic feet passing such person or animal, and 100 cubic feet as passing such animal, for each and every such person or animal, or such larger quantity or quantities as the Inspector may from time to time direct, and the air so supplied shall be forced in the prescribed quantities at least, not less to the face of every working place in any person or animal is engaged or passing.

(c) That the provision contained in part (b) of this Rule, as to a minimum supply, shall in no way operate to reduce the obligations imposed by part (a) thereof.

115. With respect to this matter Mr. Robertson desires to state that he does not believe in the minimum as an effective provision for ensuring adequate ventilation; but he agrees to this recommendation, as he recognizes that the Legislature has already laid down the principle that there shall be a minimum, and because, as the evidence before the Commission shows, most mines at the present time provide more than 150 cubic feet per ton, the minimum proposed.

SUGGESTION No. 6.

From *Illawarra District Miners* :—

All doors erected as to close and remain closed of their own motion.

Newcastle District Miners :—Agreed to.

116. The Commission recommend that the following provision be made in the Act:—

All doors in a mine shall be so erected that they shall close and remain closed automatically.

117 They also recommend that the following General Rule should be inserted in the Act to fix the responsibility on the employers to see that doors close after they pass through:—

General Rule.—No person shall open any door or screen in a main roadway if he necessary for him to pass through it; and, when any person has passed through any door or screen, he shall at once properly close the same or take care that it is properly closed, and no person shall be, to any extent, relieved from seeing to the closing of a door by the fact that it is so constructed as to be self-closing.

SUGGESTION No. 10.

From *Illawarra District Miners*:—

Double doors required on drives between main roadways and returns and main headings.

Newcastle District Miners:—Agreed to.

118. The Commission recommend that the following provisions be made in the Act:—

(c) There shall be double wooden doors in drives between main roadways and returns, and in main headings, and in other places with screens or wooden doors as may be ordered by the Inspector.

(d) Where double doors are provided, it shall not be permissible to open or keep open more than one of each doors at any one time.

SUGGESTION No. 11.

From *Illawarra District Miners*:—

Weekly measurements of air should be made in each section, and reports thereof sent to Inspector.

Newcastle District Miners.—Agreed to, and

AM. " Instead of weekly to at present "

119. With respect to this suggestion, the Commission see no evidence to warrant any departure from the present practice.

SUGGESTION No. 12.

From *Illawarra District Miners*:—

Extra supply of safety-lamps and their requisites equal to one-third of number of persons employed below ground, to be kept separately in good order and ready for use.

Newcastle District Miners.—Agreed to.

120. The Commission recommend that safety-lamps be required to be provided at all mines worked with naked lights, or *new* safety-lamps, at all mines worked with safety-lamps, according to the following scale:—

(1) One safety-lamp for every man employed up to and including fifteen men, with a maximum of five lamps.

(2) At a mine where more than fifteen men are employed, a maximum of fifteen lamps; and, in addition, (a) one lamp for every five additional men employed, in the case of a mine worked with naked lights, or (b) one lamp for every ten additional men employed, in the case of a mine worked with safety-lamps.

(3) All safety-lamps required by this rule to be provided shall be kept constantly in good order, with wicks in place, and a sufficient supply of oil to fill each lamp shall be kept available.

SUGGESTION NO. 13.

From *Illawarra District Miners*:—

Twisting and bracing rods, and other places necessary, to be properly altered.

Newcastle District Miners.—

AM. " All twisting, bracing and brace, rods to be 4 feet high "

Letgown District Miners.—

AM. " And properly twisted and kept clear of any props that may have fallen; and that the twisting rods be made not less than 4 feet 6 in. "

121. The Commission here, in their proposal to alter Rule 12, (vide Suggestion No. 25) embodied the proposal that, in every dry and dusty place, where shots are to be fired, the roof, floor, and sides, shall be thoroughly watered with water within a radius of 20 yards from the shot hole, provided that, where the roof may be injured by watering, and where the Chief Inspector consents, the roof, instead of being watered, may be thoroughly brushed free from dust.

122. The Commission further recommended that the following provision be inserted in the Act:—

Where watering of parts of the mine, other than those contiguous to places where shots are to be fired, is not deemed, by the Manager to be necessary or practicable, the Chief Inspector may, nevertheless, under the mine, or any specified part thereof, to be entered, and, in the event of objection by the owner, manager, or agent, the matter shall be referred to a tribunal.

123. With regard to the recommendation as to timbering made by the Lithgow miners, the Commission would point out that the proper timbering of all parts of a mine is provided for by General Rule No. 12, which fact has apparently been overlooked by those making the recommendation. The General Rule says:—

The roof and sides of every Tunnel, Road, and working place shall be kept secure, and a person shall not, unless appointed for the purpose of exploring or repairing, tread or work in any such tunnel, road, or working place which is not made or tinned.

124. Regarding Newcastle and Lithgow Recommendations respecting bracing roads to a height of 6 feet, the Commission do not think this matter comes within the intention of their instructions.

SUGGESTION No. 14.

From Illawarra District Miners:—

Manager to be compelled to give more personal time and attention to the management of safety.

Newcastle District Miners:—"Agree with this."

125. The Commission consider that the best way to attain the object desired by the bodies making this Recommendation, without unduly hampering the Managers in the performance of their duties, is to make better provision in the Act to deal with the Certificates of any Managers who neglect their duties in any respect.

126. The following amendments of the Act are therefore recommended:—

Section 10.—

If at any time representation is made to the Minister by an Inspector or otherwise ANY OTHER PERSON that any Manager or Under Manager OR DEPUTY AND SHOT-FIRER holding a Certificate under this Act is under any Imperial Act, is, by reason of incompetency, negligent, or otherwise NEGLIGENT OR MISFEASANT, OR OTHER MISCONDUCT (INCLUDING DRUNKENNESS, with or without his officers, or when he has committed an offence against this Act, the Minister may, AND, UNLESS HE HAVE GOOD CAUSE FOR SUBSTANTIAL DOUBT AS TO THE bona fides OR CREDIBILITY OF THE PERSON OR BODY MAKING SUCH REPRESENTATION, THE MINISTER SHALL, cause inquiry to be made into the conduct of the Manager, or Under Manager, OR DEPUTY AND SHOT-FIRER, and with respect to every such inquiry the following provisions shall have effect:

- (a) No attendance.
- (b) No attendance.
- (c) No attendance.
- (d) No attendance.
- (e) No attendance.
- (f) The Court may inquire or compel the attendance of the Manager or Under Manager, OR DEPUTY AND SHOT-FIRER, if it tends that he is, by reason of incompetency, negligent, or otherwise MISFEASANT OR MISCONDUCT (INCLUDING DRUNKENNESS, with or without his officers, or when he has committed an offence against this Act, shall be liable to discharge his duty).
- (g) The Court may require a Manager, or Under Manager, OR DEPUTY AND SHOT-FIRER to deliver up his certificate, and if any Manager, or Under Manager, OR DEPUTY AND SHOT-FIRER, fails without sufficient cause shown to the satisfaction of the Court to comply with such requirement, he shall be held to be in a state of default, and the Court shall hold a certificate in relation to the conduct of the investigation, and shall then either suspend, suspend, or suspend, the certificate, according to its judgment on the case.
- (h) The Court shall have, for the purpose of the inquiry, all the powers of a Court of Petty Sessions, and all the powers of an Inspector under this Act, AND A CERTIFICATE PURPORTING TO BE UNDER THE HAND OF THE OFFICER OF ANY COURT, THAT THE PERSON WHOSE INCOMPETENCY OR CONDUCT IS BEING INQUIRED INTO WAS CONVICTED BEFORE SUCH COURT OF AN OFFENCE UNDER THIS ACT, SHALL BE PRIMA FACIE EVIDENCE THAT HE WAS SO CONVICTED, AND THAT HE WAS IN FACT, GUILTY OF SUCH OFFENCE.
- (i) No attendance.

Section

Section 12.—

(1) Where a certificate of a Manager or Under Manager ON DEPUTY AND SIGHT FEEBLY is issued or suspended in pursuance of this Act, the Minister shall cause the same to be recorded in the register of holders of certificates.

(2) Where a Manager or Under Manager or a person to whom a certificate is issued or suspended is not a holder of a certificate, he shall be liable to be punished for the same as if he were a holder of a certificate.

New Sub-section 13.—

(1) If application be made to the Minister at any time to issue or renew any certificate which has been cancelled or suspended in pursuance of this Act, the Minister, if he considers it just to so issue or renew such certificate or suspended certificate.

(2) shall give 14 days' notice of such application to the holder of such certificate.

(3) shall, if any objection to the proposed renewal or restoration of such certificate is made, refer the same to a Court constituted similarly to the Court provided for by Section 16 of the Act, who shall have power to make any order that they may think fit for the renewal, restoration, or otherwise, of such certificate; and such order shall be recorded in the register of holders.

(4) may, if on such objection he is of opinion that it is just to so issue or renew, on such terms as he may think fit, any such certificate; and may cause the renewal or restoration of such certificate to be recorded in the register of holders.

SUGGESTION No. 15.

From Haverhill District Miners:—

Interference to be placed in bottom of open to distance between of last and air pressure

Newcastle District Miners:— "Agree with this."

127. The Commission do not think that there is any need for an alteration of the present law, in respect to the providing of mainframes.

SUGGESTION No. 16.

From Haverhill District Miners:—

Size of mainframes should be enlarged.

Newcastle District Miners:— Agree and

4 ft. 6 in. to be not less than 3 feet high 3 feet deep, and 3 feet wide, and to be situated at "

128. The Commission recommend that Rules 14, 15, and 16, (in which three quite different subjects are dealt with) be altered to read as follows:—

New Rule 14 (Same as first part of present Rule 14):—

Every underground place in which persons travel which is not fitted or worked by an engine, machine, or gas, shall be provided, (1) according to the length, with some proper means of communication between the working place and the side of the place.

New Rule 15 (Second part of present Rule 14, first part of present Rule 15, and whole of present Rule 16, altered as recommended by the Commission):—

(1) Mainframes or places of refuge shall be provided:—

(a) On every underground roadway, on which miners travel to and from their working places, where the main and secondary of haulage as a reflecting system, not worked by surface rope, is used, and the distance apart of such mainframes or places of refuge shall not be more than 10 yards or more where there is an artificial room for a person, or more than the side of the rock and the side of the road, and shall not be more than 20 yards where there is sufficient room to stand.

(b) On every underground roadway on which miners travel to and from their working places, where the main rope system of haulage is used, and the distance apart of such mainframes or places of refuge shall not be more than 20 yards.

(c) On every main and secondary of haulage or other roadway, and the distance apart of such mainframes or places of refuge shall not be more than 20 yards.

(2) All mainframes or places of refuge shall

(a) be not less than 6 feet high, 3 feet wide, and 4 feet deep, but need not be more than 10 feet high, even where the road itself is of greater height than 6 feet;

(b) be constantly kept clear, and no person shall place anything in any such mainframe or place of refuge.

(3) ALL SUCH MAINFRAMES SHALL BE, AND SHALL BE KEPT, CONSPICUOUSLY MARKED AT THE CORNERS ADJOINING THE ROADWAY.

New Rule 16 (Second part of present Rule 16):—

There shall be provided, in every main roadway and in every boiler gallery under ground, at least two proper travelling ways.

SUGGESTION No. 17.

SUGGESTION No 17.

From Hawarra District Miners :—

Cancellation of Certificate of William Rogers, Manager

Newcastle District Miners :—

We are of opinion that Mr Rogers' Manager should be called on to show cause why his certificate should not be cancelled.

199 The Commission do not consider that this comes within the scope of their instructions, but, so far as Mr Rogers's actions call for comment, the Commission have already dealt with the matter in this Report.

SUGGESTION No 18.

From Hawarra District Miners :—

Instruction should be given to employees regularly on means of escape.

Newcastle District Miners :—

add "That proper machinery be kept at the second shaft outlet to lift all employees to the surface within one hour."

Lillager District Miners :—

add "And that all escape shafts be properly equipped with means to draw men in case of accident ; and that proper means of signalling be also kept."

190 The Commission recommend that provision be made for the instruction of employees as to the means of escape from mines, as follows :—

(i) Once in every quarter or more time (not exceeding twelve from each district) or any more frequent, either verbally or in writing, at the Deputy's Order, shall be instructed by the officials as to the means of escape by at least one alternative route ; unless provision is made to interfere the way out of the mine by means of direction boards, or by any other method approved by the Chief Inspector.

(ii) The official in instructing the employees shall make a written report, stating the number of persons from each district so instructed, and the route taken.

(iii) At least a week before it is intended to so instruct the workmen, the management of the mine shall exhibit a notice in that effect to the Deputy or Tunnel mouth.

181. As to the Newcastle suggestion, the Commission recommend that Section 48, Sub-section (1), par. (c) of the Act be amended as follows :—

SUCH proper apparatus AS THE CHIEF INSPECTOR SHALL DEEM NECESSARY for raising and lowering persons SHALL BE PROVIDED AT EACH SUCH SHAFT OR OUTLET ; and such shafts or outlets shall be kept as the works in charge to the mine and such apparatus shall be kept in use at all the shafts or outlets ; and the management shall be so instructed that such apparatus shall be tested in operation AT LEAST ONCE EVERY DAY ; AND STEAM SHALL BE KEPT ALWAYS UP ON THE BOILERS PROVIDED TO DRIVE THE MACHINERY, OR, IF STEAM BE NOT THE MOTIVE POWER, SUCH OTHER MOTIVE POWER AS MAY BE PROVIDED SHALL BE KEPT ALWAYS AVAILABLE FOR IMMEDIATE USE.

192 General Rule 20 of present excerpts mine-managements from providing shafts under 50 yards in depth with signalling arrangements. The Commission, however, are of opinion that every shaft, of whatever depth, should be so provided. The following amendment of General Rule 20 is therefore recommended :—

Every working shaft used for the purpose of driving minerals or for the lowering or raising of persons shall, if exceeding 50 yards in depth, and not exempt in writing by the Inspector of the district, be provided with guides, and SUFFICIENT, WHETHER USED FOR THE PURPOSE OF RAISING MINERAL, OR FOR LOWERING AND RAISING MEN, SHALL BE PROVIDED WITH some proper means of communicating distinct and definite signal, from the bottom of the shaft, and from every entrance for the time being in use between the surface and the bottom of the shaft, and from every entrance for the time being in use between the surface and the bottom of the shaft.

SUGGESTION No. 19.

From Ilwaco District Miners :—

Coal Mines Act to detail a Black list of employers being lax, and pending superior prevention of discharged persons obtaining employment.

Newcastle District Miners :—Agreed to.

133. The Commission, having fully considered all that has been said on this matter, have arrived at the conclusion that no practical result would be secured, even if the provision asked for by the miners were included in the Coal Mines Regulation Act. Whichever opinion may have been honestly held as to the existence of some such practice in the past, the Commission do not consider that it exists at present.

SUGGESTION No. 20.

From Ilwaco District Miners :—

Safety-lamps not to be unlocked for short firing.

Newcastle District Miners :—Agree with this.

134. This suggestion is dealt with by the amendment of Rule 12 which is recommended by the Commission elsewhere in this Report. (Fide Suggestion No. 25).

SUGGESTION No. 21.

From Newcastle District Miners :—

That the Managers of each district should have the power to recommend for appointment as Inspectors for their respective districts.

135. The Commission consider that the appointment of Inspectors should more properly come under the functions of the Public Service Board. They therefore recommend that Section 17 of the Act be amended, as follows :—

(1) The Minister may appoint THE GOVERNOR MAY, ON THE RECOMMENDATION OF THE PUBLIC SERVICE BOARD, APPOINT AS INSPECTORS OF MINES duly qualified persons, who—*(insert wherever it occurs the words)*—and accept them, their RESPECTIVE duties, and may reward them such salaries as THE PUBLIC SERVICE BOARD think fit as Parliament SHALL approve, and may remove any such Inspector: AND EACH SUCH PERSON SHALL BE, AT THE TIME OF HIS APPOINTMENT, THE HOLDER OF A FIRST CLASS CERTIFICATE OF COMPETENCY.

(2) To stand as in Act.

(3) To stand as in Act.

(4) Every Inspector under this Act shall hold a first class certificate of competency as required in his certificate provided in regard to Managers but for the purposes of this Act to serve in an inspection of Collieries will be expected to exercise as managers of a mine.

136. Mr. Robertson is strongly of opinion that candidates for the position of Inspector of Mines should, in addition to holding 1st Class certificates of competency, be required to have had at least five years' experience as Managers of Mines before they can be considered eligible. The President agrees with Mr. Robertson in attaching great importance to the practical experience gained by an applicant in managing a considerable mine, but agrees with Mr. Hitchens in thinking that, if the appointments be placed under the Public Service Board, the Board may be trusted to select thoroughly competent inspectors, and that no candidate who is otherwise eligible should be rejected merely because he has not actually held the position of manager of a mine for five years.

137. The Commission unanimously desire to point out that, in their opinion, the salaries at present paid to the Inspectors are far too low to attract the best men; though, in saying this, they do not desire to, in any way, reflect on the present holders of the positions.

SUGGESTION No. 22.

SUGGESTION No. 22

From Newcastle District Miners :—

That a red light should be carried on the front of trams or carts or engine planes, or other self-acting machines.

138. The Commission recommended that the following provision be inserted in the Act :—

On every haulage road used as a travelling way, where the speed of the skips exceeds five miles an hour, the trams or carts shall carry a red light on the front.

SUGGESTION No. 23

From Newcastle District miners :—

That a change be inserted in the Act whereby better sanitary arrangements should be adopted in all mines where workmen are employed.

139. The Commission, while recognising the desirability of some better sanitary arrangements in mines, are of opinion that the matter might be dealt with by an addition to Special Rules of the various collieries, giving the men the right to leave the mine when they have good and sufficient cause, but not on frivolous pretexts.

SUGGESTION No. 24

From Newcastle District miners :—

That the management of a mine should not interfere with the right of an employee to go out of the mine when he desires to.

140. The Commission cannot see their way to acquiesce in this recommendation, put in such an unqualified way. They think the matter might be dealt with by an addition to Special Rules of the various collieries, giving the men the right to leave the mine when they have good and sufficient cause, but not on frivolous pretexts.

SUGGESTION No. 25

Prepared by Mr. A. A. Atkinson, Chief Inspector of Coal Mines :—

Proposed alteration of General Rule 12 Section 47, which is based on the assumption that the use of gunpowder for blasting will be prohibited in all mines where safety lamps are used, or which are not naturally wet throughout, and that in such cases only certified shot-fires will be permitted to fire shots.

Rule 12. Any explosive substance shall only be used in the mine below the ground as follows :—

- (a) It shall not be stored in the mine.
- (b) It shall not be carried into the mine, except in cartridges in a secure case or container containing not more than five pounds.
- (c) A workman shall not have in use at one time in any one place more than one of such cases or containers.
- (d) A workman shall not take with any more any iron or steel pickaxe, chisel, tamper, rod, or hammer, nor shall any workman use an iron or steel wedge in the process of charging or stemming the blasting, and only clay or other non-metallic substances shall be used for stemming, and shall be provided by the owner of the mine.
- (e) No explosive shall be flexibly pressed into a hole of significant size, and, when a hole has been charged, the explosive shall not be withdrawn, and no hole shall be bored for a charge at a distance of less than twelve inches from any hole where the charge has caused fire, and shall, as far as possible, be packed with it, provided that in case where a fire caused no person shall return to a place where such charge has caused fire until a period of eight hours has elapsed from the lighting of the fuse attached to such charge.
- (f) In any mine in which the use of a locked safety-lamp is for the time being required (by the Coal Mines Amendment Act, 1907), or which is not naturally wet throughout, only Licensed Explosives, according to the strict rules, in general Coal Mines Order, shall be used, and in such case the following provisions shall be observed :—

1. No shot shall be charged or fired except by a certified shot-firer appointed by the Manager of the mine in writing.
2. No shot shall be fired except by means of an electric battery or apparatus, and the certified shot-firer shall himself couple up the cable to the charge, and whilst doing so shall have the battery with him. He shall also himself couple the cable to the battery.

Let's find the value of $\frac{1}{2}$ in the given sequence.

- [illegible]

(g) Is the full "Verbending Dats" or "wars" made part of a name, as how an Independent is also one serving from a name strike was corrected an independent return to way accumulating at a is a return to correct, and "How things read" causes a read which has been or for the time being is a one for serving time to show or other mechanical point.

(4) Where a term of a provision is not divided into separate containing brackets, the provision in the Art Relating to "Yamhung District" shall be read as though the word "and" were substituted for the words "Yamhung District".

143. The Commission recommends that the following be inserted in place of Rule 12 of the present Act:

Rule 12—The following shall be the conditions under which employees may be used in mines below ground:—

(1) \mathcal{H} is piecewise shift not. In stated in the main

(1) Explosives shall not be taken into the camp except in cartridges which shall be in a secure case or casket, and each case or casket shall not contain more than five pounds weight of such cartridges, and there shall not be at one time in any one dwelling or other place more than one such case or casket.

(2) A workman shall not take into use or carry about with him or stand upon, charge, bump, and, or otherwise, use shall any workman or shall trip use as run or stand upon in the presence of charging or clamping for blasting.

(4) Only clay or other nonflammable solvents, provided for the purpose by the management of the mine, shall be used for treatment.

(1) Hottel holds shall be made of a self-sealing for the over-urition of the explosion cartridge, and an explosion shall not be forcibly pressed into a hole under pressure at the maximum size of the hole or for any other reason.

(D) When a hole has been charged and stemmed, or partly stemmed, the stemming shall not be withdrawn.

(1) When no explosive charge, life hazard flag, or, from any cause, remains reexploded, no hole for an additional charge shall be drilled or driven so as to come in any place, nearer than 12 inches to such hole containing such reexploded charge.

In case of a short-circuiting fire, in which any fuse other than an approved fuse has been attached and lit, the person who finds the short shall immediately put up a sign or signs to prevent persons entering the place, and shall not remove the same until he is told to do so; and any person (including a examining deputy) shall refuse to enter the place until such a sign is set up; [N] but no oil lamp lighter from the lighting of the fuse

(b) Neither compound nor any other explosive shall be used in the first 15 feet of the shaft. From the shaft bottom, for the first 100 feet, the shaft shall be drilled with a 4 in. diameter hole, and the hole shall be drilled with a 4 in. diameter hole, and the hole shall be drilled with a 4 in. diameter hole. From the shaft bottom, for the first 100 feet, the shaft shall be drilled with a 4 in. diameter hole, and the hole shall be drilled with a 4 in. diameter hole. From the shaft bottom, for the first 100 feet, the shaft shall be drilled with a 4 in. diameter hole, and the hole shall be drilled with a 4 in. diameter hole.

(c) All checks shall be signed, stamped, and filed, by or on behalf of the trustee, and the trustee shall be responsible for ensuring that the checks are properly signed, stamped, and filed, and that the checks are properly cashed and the proceeds are properly deposited in the trust account.

SUGGESTION No. 26.

From Mr. A. A. Atkinson, Chief Inspector of Coal Mines:—

That General Rule 4 be altered so as to require the inspection of all places in a working district by Inspectors, including those temporarily idle.

143. The Commission recommended that General Rule 4 be amended as follows:—

A station or stations shall be appointed at the expense of the mine, or in ANY different parts PART of the mine, as the case may require, and the following provisions shall have effect:—

(a) As to inspection before commencing work:—

A competent person or competent persons EACH OF WHOM SHALL BE A CERTIFIED DEPUTY AND SIGN-FILER under this Act, appointed for the purpose by the owner, agent, or manager, and not being a connector for getting minerals in the mine, shall, within such time, immediately before the commencement of each shift, as shall be fixed by special Rules made under this Act, inspect every part of the mine situate beyond the station or each of the stations, and in which working are in work or soon during that shift, AND A LONG ALL PLACES TEMPORARILY OR PERMANENTLY IDLE ON THE INSTAKE SIDE OF ANY WORKING PLACE, and shall ascertain the condition thereof, as far as the presence of gas, the ventilation, road, and other and general safety, are concerned.

No workman shall pass beyond any such station until the part of the mine beyond that station has been so examined, and stated by such competent person to be safe.

The inspection shall be made with a locked safety lamp, except in the case of any mine in which self-rescuers go to work, in which case the following order shall be observed:

A report specifying, where necessary, any inflammable gas, if any was found present, AND STATING, ALSO, WHETHER THE GAS WAS OR WAS NOT FOUND PRESENT IN QUANTITIES SUFFICIENT TO RENDER IT A HAZARD IN SUCH PART DANGEROUS, the condition of the ventilation, and what defects of air, its quality or volume, and what, if any, other sources of danger, were or was observed, shall be recorded without delay in a book to be kept at the mine for the purpose, and accessible to the workmen, and such report shall be signed by and, so far as the mine does not consist of worked mines, shall be in the handwriting of the person who made the inspection.

For the purpose of the foregoing provisions of this section, the mine or mines comprising one section station, and situated any in the district, shall be one shift.

(b) As to inspection during shifts:—

A minute inspection, minutely reported, shall be made in the course of each shift of all parts of the mine in which workmen are to work or soon during that shift, INCLUDING PLACES TEMPORARILY OR PERMANENTLY IDLE ON THE INSTAKE SIDE OF ANY WORKING PLACE, but shall not be necessary to make a report of the condition of the mine, if the mine is situated in a district in which the inspection is made by a competent person, the report of such inspection shall be recorded in a book to be kept at the mine.

SUGGESTION No. 27.

From Mr. A. A. Atkinson, Chief Inspector of Coal Mines:—

"That, so far as practicable, doors for the purpose of directing the ventilation, should be avoided in the haulage road, where mechanical haulage is adopted."

144. The Commission recommended that it be provided:—

That no door for the direction of the ventilation, or for any other purpose, shall be erected in a haulage road where mechanical haulage is used, except on order of the Inspecting Officer.

(a) Notice shall be sent to the Inspector, either by letter or by order, to erect the door, or within a week after (at the first) that the door has been erected, and such notice shall describe the position in which the door is proposed to be, or has been, erected, and

(b) The Inspector shall have power to enter the mine of any such door as proposed, or in order the removal of any such door, if erected, if, after consultation with the Manager of the mine, he considers it necessary to take such a course.

SUGGESTION No. 28.

From Mr. A. A. Atkinson, Chief Inspector of Coal Mines:—

"That, having regard to the injury done caused by the use of naked lights all roads and workings, in offices where naked lights are used, should be inspected by the officials with a locked safety lamp, on the creation of the day's work, and a report should be made at the inspection."

145. The Commission recommended the addition to General Rule 4 of a new sub-section as follows:—

(c) As to inspection after the creation of the day's work:—

An inspection in every respect similar to that provided for in paragraph (a) of this Rule shall be made with a locked safety lamp, in every mine in which naked lights are used, on each occasion, at and immediately after the creation of work in the mine, and a report of such inspection shall be recorded without delay in a book to be kept at the mine for the purpose, as provided in paragraph (a).

SUGGESTION No. 22.

From Mr. A. A. Alderman, Chief Inspector of Coal Mines:—

"That where devices are used for raising or lowering persons, safety hooks, to prevent the cage from being over-wound, shall be compulsory."

145 The Commission recommend that a provision be inserted in the Act as follows:—

Where steam or other mechanical power (including a wind or other machine worked by men or horses) is employed to move shafts up or down for the purpose of raising and lowering persons, safety hooks shall be fitted to all cages, brackets &c. for the purpose of effectually preventing such cages or brackets from the winding rope not retaining them in a position of safety, in case of the rope being over-wound.

147 It is also recommended that Section 42, General Rule 27, page 38 of Act be amended as under:—

Rule 27. In any mine SHAFT IN WHICH the winding apparatus is not REQUIRED BY THIS ACT TO BE provided with an automatic contrivance to prevent overwinding, AND IN WHICH NO SUCH CONTRIVANCE IS PROVIDED, then the cage when men are being raised, shall not be wound up at a speed exceeding three miles an hour, after the rope has reached a point in the shaft to be fixed by the Special Rules. NOT BEING LESS THAN SIX FEET BELOW THE WINDING LEVEL.

SUGGESTION No. 33.

From Mr. A. A. Alderman, Chief Inspector of Coal Mines:—

That, in mines where safety lamps are not used, a book be kept for the purpose of reporting in the presence of gas men by witnesses such reports to be signed by the workmen who make the report.

148 The Commission recommend that the following provision be inserted in the Act:—

(1) In mines where safety lamps are not used, any workman, who sees the signs, or otherwise becomes aware of the presence, of inflammable gas, shall:— (a) immediately inform his working place, if that be the place where the gas is found; (2) report the discovery of gas to the nearest mine official; and (3) attached sign a report of the circumstances in a book which shall be kept at the District or Colliery Office for the purpose.

Provided that, if such workman cannot himself write the necessary report in the book,—

- (a) if there be a clock-weigher at the mine, he shall do so in a clock-weigher's book, and sign by a mark which the clock-weigher shall witness, a report of the finding of gas and of the circumstances; such report shall be written in ink in the book provided for the purpose as aforesaid in an appropriate set of writing paper, which may be more convenient, and shall be sent up to his clerk by and countersigned by the clock-weigher before being signed; and it shall be the duty of the clock-weigher to send any witness as herein provided.
- (b) if there be no clock-weigher at the mine, he shall procure some person to write the report as he aforesaid, to read it over to him, and to witness his mark in lieu of signature as aforesaid in such paragraph (a).

and if a full hand such report as aforesaid, written, read, by mark, and witnessed, is a responsible official of the mine within 12 hours of the time when he shall have so despatched gas.

(2) In mines in which safety lamps are used, any workman who becomes aware of the presence of inflammable gas shall at once report the fact to the nearest official, but such report need not necessarily be made in writing.

(3) It shall be the duty of any and every official to whom gas report of the finding of gas is made by any workman to transmit with such report immediately by the most expeditious means available suitably to the Manager or Under-manager, whichever may be the more readily accessible, and the book containing the written report, or, if it be more convenient, a copy of such report, and the report be not made in a book, then the original, shall be, also, as early as may be practicable taken as sent by the official who shall first have possession, or become aware, of such report, to the Manager or Under-manager.

149 As an amendment following as a consequence on the recommendation in the preceding paragraph, the Commission recommend that General Rule 36 be altered as here shown:

The books mentioned in these Rules shall be provided by the owner, agent, or manager, and the books or a certificate thereof, shall be kept at the office of the owner. EXCEPT WHEREBY IT IS HEREBY PROVIDED BY THIS ACT, and any Inspector under this Act and any person employed in the mine may, at any reasonable time, inspect and take copies of, and extracts from any such book, but nothing in these Rules shall be construed to require the obligation of keeping any such book or a copy thereof for more than twelve months THREE YEARS after the book has ceased to be used for entries therein under this Act. Any report by this Act required to be recorded in a book may be partly in print, containing diagrams, and partly in writing.

SUGGESTION No. 31.

SUGGESTION No. 31.

From Mr. A. A. Atkinson, Chief Inspector of Coal Mines.—

That in Collieries employing more than 20 persons, a training of the workmen shall be kept, showing the situation of the mine, the position of the air passages, doors, stoppings, etc. The training to be posted up at least once in every twelve months, and to be posted up after general information.

130. The Commission recommended that the following provision be inserted in the Act:—

- (a) In all mines where more than 20 workmen are employed there shall be kept a training of the plan of the workings in which shall be shown (1) the situation of the air passages by which the workings are ventilated, and (2) the position of air passages, doors, stoppings, buttresses, &c., and this training shall be open to the inspection of the Mines Check Inspectors for the time being.
- (b) such training shall, from time to time, at intervals which shall not exceed six months, be posted with the additional information rendered necessary by the extension of the workings.

SUGGESTION No. 32.

From Mr. J. Wyan, ex-miner, and Mines' Check Inspector (Ilkley District), and Mr. W. Bower, ex-miner, and Mines' Check Inspector (Newcastle District).—

That the law, which, at present, requires Check Inspectors to be "practical working miners," should be amended by the addition of the word "working."

From Mr. W. Bower.—

That the prohibition contained in the Act against the appointment of a Mining Engineer as a Check Inspector be repealed.

131. The President and Mr. Ritchie recommended that General Rule 30 be amended as follows:—

Rule 30.—The persons employed in a mine are from time to time grouped as their own cost-twee of their own business, and the persons employed in a mine are from time to time grouped as their own cost-twee of their own business. EITHER ONE OR TWO PERSONS in a mine, or from time to time, and the PERSONS in a mine as appointed shall be allowed AT ANY REASONABLE TIME, on call for business needs, appointment, if the owner, agent, or manager of the mine desires to, by himself or his or some officers of the mine, to go to every part of the mine and to inspect the shafts, levels, places, workings, places, where persons, machinery, apparatus, old workings, and machinery. Every facility shall be afforded by the owner, agent, and manager, and all persons in the mine, for the purpose of inspection, and the PERSONS ON persons appointed shall forthwith make a true report of the result of the inspection, and that report shall be recorded in a book to be kept at the mine for the purpose, and shall be signed by the PERSONS ON persons who made MAKING the inspection, and if a report is made the same may be signed on behalf of the owner, agent, or manager, shall forthwith make a true copy of the report to be sent to the Inspector of the district.

132. Mr. Robertson does not see his way to concur in leaving out the words "not being mining engineers," but thinks that they should follow the word "miners"; he is also of opinion that the provision imposing upon the mine management the duty of forwarding a copy of the report to the Inspector should be repealed, and that this duty should be put on the Check Inspector. The President and Mr. Ritchie think the Rule had better be amended as above.

SUGGESTION No. 33.

From Mr. W. Bower.—

That the provision in the Act, requiring objections by Miners to proposed Special Rules to be forwarded to the Department in print, be repealed.

133. Mr. Bower, and the other witnesses who mentioned this subject, have been misled by the involved phraseology of section 51 of the present Act, which they have understood to mean that miners who may have objections to proposed special rules must forward them, *printed*, to the Inspector; whereas in fact the provision contained in this section which has been wrongly applied by them is that

the owners of the mines shall exhibit a printed notice stating that objections may be made. The Commission recommend that, in amending the Act, the following re-draft of this section be adopted:—

Section 21. Subsection (2) The owner, director, or agent, at the time that, during no less than two weeks before the proposed special rules shall be transmitted to the Legislature, K&N² posted up or cause to be K&N² posted up a statement or as provided in this Act respecting the substance of these Rules for the information of persons coming in or about the mine).

(c) the marked serial name, and

(9) a personal notice to THE EFFECT that any objection to the proposed special rules (on the ground of anything contained therein or omitted therefrom) may be sent, in writing, by way of the persons employed in or about the mine, to the Inspector of the District, at his address, which shall be entered in the notice.

And a certificate that the Rules and orders have been so posted up shall be sent to the Inspector, with such copies of the rules, signed by the person making the same.

STGGESTION No. 31

From Mr. W. Dancy:—

That value as small as possible should not be stored beyond battery so always

134. The Commission consider that the provisions of the Act with regard to ventilation sufficiently safeguard the interests of the miners against the pollution of working spaces in streets being carried to such an extent as to cause danger by interfering with the supply of air, this being the only danger to be apprehended, even remotely, from such a practice. The Commissioners are, therefore, of opinion that there is no need for any alteration of the law in the direction proposed.

SUGGESTION No. 85

From Mr. T. Graham, ex-miner, Hildonburgh, —

That as respects of each mine he made, once in every six months, by a representative of the mine (the Under manager), a representative of the miners (the Check Inspector), and the Government Inspector, accounts, and that the report be published.

18) The Commission do not see their way to endorse this recommendation.

The following are suggestions which have occurred to the Commission when considering the evidence:—

SUGGESTION No. 30

155 The Commission recommends that the following be inserted in the Act as a new clause:—

Whereas my duty is assigned to me as my Deputy and that there are Under-managers of a mine by virtue of the provisions of the Act such duty may be discharged by the Under-manager or the Manager

BIOGRAPHY No. 37

187. The Commission recommended that section 20, subsection (1), of Act, be amended by deleting certain portions as shown hereunder:—

[illegible]

SUGGESTION No. 29

SUGGESTION No. 35.

138. The Commission recommended that section 35 of the Act be amended as follows, in order to provide for the representation of miners at arbitrations under the Act:—

Section 35.—With respect to arbitrations under the Act, the following provisions shall have effect, and, except where they are inconsistent with the provisions of the Act, the provisions of the Arbitration Act, 1904, shall apply to arbitrations under this Act:—

(a) The parties to the arbitration are in this section deemed to be the owner, agent, or manager, of the mine, on the one hand, and the Inspector of Mines on behalf of the Miners on the other:

PROVIDED THAT THE PERSONS EMPLOYED IN OR ABOUT THE MINE MAY ALSO BE PARTIES TO ANY SUCH ARBITRATION; AND THAT, IF SUCH PERSONS EMPLOYED IN OR ABOUT THE MINE MAKE APPLICATION TO THAT EFFECT, THE MINISTERS SHALL APPOINT A DISTRICT COURT JUDGE TO BE A SINGLE ARBITRATOR IN LIEU OF THE BOARD OF ARBITRATORS AFORESAID; AND SUCH SINGLE ARBITRATOR SHALL BE ASSISTED BY THE ARBITRATOR APPOINTED BY THE MANAGEMENT, AS ANSWEROR, AND BY ANOTHER ANSWEROR TO BE APPOINTED BY THE WORKMEN SO MAKING APPLICATION.

(The rest of the section to stand as in Act.)

SUGGESTION No. 36.

139. In order to make provision for the representation of miners at inquiries on the victims of colliery accidents, the Commission recommended that section 23 of Act, subsection (a), be amended by adding words as shown hereunder:—

(a) any relative of any person whose death may have been caused by the explosion or accident with respect to which the report is being held, and the owner, agent, or manager of the mine in which the explosion or accident occurred, and any EXECUTIVE OFFICER OF ANY UNION OF WORKMEN, OR ANY person appointed by the order or stipulation of the majority of the workmen employed at the said mine WHERE THERE BE NO UNION OF WORKMEN, shall be at liberty to attend and examine any witness, either in person or by his counsel, solicitor, or agent.

SUGGESTION No. 40.

140. The Commission recommended that section 18, subsection (2), of Act be amended as under:—

(2) The owner, agent, or manager, of the mine shall, on request at any time of an inspector under this Act, produce to him, IN CONFIDENCE, as the value of the mine, such plan and section, and shall also on the like request make WITHIN A REASONABLE TIME as such plan and section the true state of the workings of the mine, and the inspector shall be entitled to examine the plan and section, and for official purposes AND IN CONFIDENCE only to make a copy of any part thereof respectively, AND SHALL NOT ALLOW ANY SUCH PLAN OR SECTION OR COPY THEREOF TO LEAVE HIS CUSTODY, OR TO BE LOANED OR USED FOR ANY PURPOSE OTHER THAN SUCH AS ARE PROVIDED FOR IN THIS ACT.

SUGGESTION No. 41.

141. The Commission recommended that the following provision be inserted in the Act:—

On application made to an Inspector or District Court Judge, by any person who has been injured in any mine in which the legal personal representatives of any deceased person, whose death was caused by an explosion or accident in any mine, after notice to the management of the mine, the court or judge shall have power to make an order for the inspection of the mine, and the court or judge shall have power to make an order on such terms, and send down to the District Judge any plan or copy thereof as he may think fit, provided that the proprietors of the mine shall have the right to be represented at such inspection of the mine by any person whom they may appoint.

142. The Commission consider that, if this recommendation be carried out, it may prevent, in some cases, actions suits for damages being begun.

SUGGESTION No. 42.

143. The Commission recommended that section 47, General Rule 21 (page 25 of Act), be amended as under:—

Rule 21.—Where the nature of the work is such that any working or passing shaft shall be securely cased, lined, or otherwise made secure. Every shaft in course of making shall be kept clear of all noxious AND INFLAMMABLE gas by a fan or some other appliance.

SUGGESTION No. 43.

SUGGESTION No. 43.

164. The Commission recommends that General Rule 24 be struck out and a new rule be inserted, as follows:—

When there is a descent and ascent shaft in the same mine, and both such shafts are provided with apparatus for ascending and descending persons, every person employed in the mine shall on going to or from his work have the option of using the descent shaft.

New Rule 24:—

NO SHAFT IN WHICH PERSONS ARE LOWERED FROM AND RAISED TO THE SURFACE OF ANY MINE IN CONNECTION WITH THE ORDINARY WORKING OF SUCH MINE SHALL BE USED TO CONDUCT FROM ANY FURNACE TO THE SURFACE THE FUMES, SMOKE, HEATED AIR, OR GASES RESULTING FROM COMBUSTION.

PROVIDED THAT NOTHING IN THIS RULE SHALL BE CONSTRUED TO PREVENT WORKMEN BEING RAISED OR LOWERED IN A SHAFT WHICH IS SO USED, IF SUCH WORKMEN ARE ENGAGED IN THE INSPECTION OR REPAIRING OF SUCH SHAFT.

SUGGESTION No. 44.

165. The Commission recommends that General Rule 26 (page 86 of Act) be amended by striking out words as shown hereunder:—

Every working shaft used for the purpose of drawing materials or for the lowering or raising of persons shall, if it is an admissible guide-rope shaft (and not a rope-way), be kept by the Inspector of the District, for the approval of the Minister, by any number of persons, employed in or about the mine, being not less than one-fourth of those who are directly affected by the rule or rules as proposed to be modified, and such proposed modifications shall be dealt with in like manner as is provided for dealing with amendments proposed by the owner, manager, or agent, of the mine under sub-section (1) of this clause.

Provided that the person or persons so proposing amendments of the special rules shall forward at the same time to the owner, manager, or agent, of the mine a true copy of the letter to the Inspector in which such amendment is proposed.

SUGGESTION No. 45.

166. As the Act stands at present, though miners have the right to object to any proposed Special Rules, they have no statutory power to propose amendments of Rules which have once been put in force. In order to grant them this privilege, the Commission recommends that the following new sub-section be added to section 23 of the Act:—

(2) After special rules are established in any mine, any modification of them, by way either of amendment, alteration, substitution, or addition, may be proposed, in writing, to the Inspector of the District, for the approval of the Minister, by any number of persons, employed in or about the mine, being not less than one-fourth of those who are directly affected by the rule or rules as proposed to be modified, and such proposed modifications shall be dealt with in like manner as is provided for dealing with amendments proposed by the owner, manager, or agent, of the mine under sub-section (1) of this clause.

Provided that the person or persons so proposing amendments of the special rules shall forward at the same time to the owner, manager, or agent, of the mine a true copy of the letter to the Inspector in which such amendment is proposed.

SUGGESTION No. 46.

167. The Commission recommends that a new section be inserted in the Act as follows:—

Should any workman become aware of any defect or defects in the condition of the mine or of the machinery or appliances connected therewith, or supposed danger from any cause whatever, he shall at once report the circumstance to an official of the mine, but he shall, if it seems within the scope of his duties, and if he is able to do so, remedy such defect or defects, such, in every case, his shall, if it appears to him to be necessary, take such steps as he may deem possible and advisable to prevent damage to life or property. He shall not use any machinery or other appliance that would be liable to be made, unless compelled to do so by the urgency of avoiding imminent danger to life.

Whenever any danger or defect or supposed danger or defect is reported to an official, such official shall, in addition to remedying it, make a memorandum in writing of such report as a book to be kept in the colliery for the purpose.

SUGGESTION No. 47.

168. The provision inserted in the suggested alteration of Rule 12 that, when explosive charges are to be fired, the bark shall be stripped from all timber within a radius of 20 yards, has suggested to the Commission a matter which appears to have some considerable importance in relation to the safety of mines from fire; and they therefore recommend that, in future, no timber shall be taken into any mine unless the bark is first stripped from it.

There are three important reasons for adopting this course, (1st) the danger of fire being caused by the leaving of the dry bark on props used or to be used in a mine; (2nd) the similar danger of fire caused by leaving timber in that condition to rot on above-ground; and (3rd) the Commission have good reason to believe that where such timber as is cut for use as props is kept, after being cut, for some time before being used in the mine, its strength and durability are very prejudicially affected by the bark being left on it.

SUGGESTION No. 48

148. The Commission recommend that in Rule 10 the following amendments be made:—

10. In any mine or part of a mine in which safety lamps are required by this Act, or by the Special Rules made in pursuance of this Act, to be used,—

(a) To stand as in Act

(b) To stand as in Act

(c) To stand as in Act

(d) A person shall not have in his possession any tinder which is capable of any kind for striking

a light OR ANY DESCRIPTION OF CIGARETTES, CIGAR, OR TOBACCO PIPE, or pipe, or any other article, which is capable of being used in the mine of the mine.

149. In making these recommendations, the Commission, having no knowledge whether, if effect were given to the recommendations, the present Act would be amended, or an entirely new Act drafted, have merely recommended that attention be made "in the Act."

Conclusion.

We have now completed the arduous and responsible duty which Your Excellency has seen fit to entrust to us; in the very best of our ability, with a due sense of the honor which Your Excellency has conferred upon us by this Your Commission; and in the earnest hope that the result of our investigations may prove of substantial benefit to all concerned in the coal-mining industry of this State and to the public generally, and that the avoidance of such disasters as that which has led to the holding of this Inquiry may be a result of our endeavours. But, before closing our report, we beg leave to bring under Your Excellency's notice a few matters connected with the conduct of this Inquiry. First, when we undertook it, we were led to expect—and we feel that the general public also understood—that it was likely to be completed within a few weeks from the time of our beginning the investigation. It is now over six months since Your Excellency's Commission was issued, and five months since we first visited the mine, before taking evidence at Wellington. Yet Your Excellency may rest assured that from the first we have used our very best endeavours to complete the matter within the earliest possible date, and that it was, in the beginning, due to certain unavoidable circumstances beyond our control, and has been, since we began our investigation, owing to the great extent and complexity of the subjects to be dealt with by us, that the Inquiry has been, necessarily, prolonged; and we assure Your Excellency that we look forward to its close with a great sense of relief. Though meeting, as Commissioners, at certain times which appear on the minutes, as frequently as was possible, consistently with our own other unavoidable duties and the ability of our staff to keep the work from overtaxing their most anxious endeavours to cope with it, we may be permitted to inform Your Excellency that the hours, by day and night, also devoted by us to work connected with the Inquiry bear a very large proportion to the time which the minutes disclose as having nominally been consumed by us on the duties incident to the Inquiry. And these remarks naturally lead us to a mention of the ability, industry, and zeal, displayed by the staff employed in the secretarial, reporting, and general work of the Commission; which we are very pleased to have this opportunity of acknowledging. And, especially, we desire to express our indebtedness to Mr. John Gairick, the Secretary and principal shorthand-writer, for the very remarkable ability, the untiring attention and zeal, the cheerfulness and tact, and the extraordinary industry, which he has displayed throughout, and which have been of quite invaluable assistance to us,

from

from the very first moment of his appointment to the completion of the report, in the framing of which his powers of orderly arrangement and of composition, his industry, and his understanding and recollection of the evidence, were of such service to us that we feel convinced that without his valuable aid we should have taken a very much longer time, and should have had unaccountably more labor and difficulty, in completing our work. We most strongly recommend Mr. Garlick to Your Excellency's notice, both as an officer especially entitled to consideration on account of merit and ability, and as one who, in this particular instance, deserves a very substantial recognition of his services, which we can safely say have saved much expense to the State, while we are aware that, in the course of the performance of his duties, continuing for months, he unconsciously devoted extraordinarily long hours to very fatiguing work. We have also to thank the various permanent Heads of Departments, and the members of their staff, with whom we have come in contact, and especially the Chief Inspector of Coal Mines, for the valuable assistance, the courtesy and consideration, which they have extended to us, the only very effectively assisting us in various ways in the course of our Inquiry.

We have the honor to be,

Your Excellency's most obedient Servants,

(83.) C. E. D. MURRAY,
President.

(84.) D. A. W. ROBERTSON,
Commissioner.

(84.) DAVID RITCHIE,
Consulting Engineer.

Sydney, May 29, 1882.

ROYAL COMMISSION OF INQUIRY RESPECTING THE MOUNT KEMBLA COLLIERY DISASTER.

MINUTES OF MEETING.

Friday, 17th December, 1902.

[District Court Office, Sydney.]

Present.—His Honor Mr District Court Judge Murray (President), D. A. W. Robertson, Esq.,
D. Butler, Esq.

Mr J. Girdick, Principal Bookbinder to the Public Service Board, attended the meeting as Secretary to the Commission.

By direction of the President the Secretary read the Commission, which was found to be dated 5th November, 1902, and to have currency for one month.

The President moved, and it was resolved,—“That the Secretary be instructed to write to the Principal Under Secretary, asking that the currency of the Commission be extended for one month.”

A letter from the Secretary to the Public Service Board to the President, dated 10th December, 1902, notifying the appointment of Mr J. Girdick as Secretary and Bookbinder to the Commission was read and received.

It was resolved, by the direction, that the Commission should sit at Mount Kembla Mine on Tuesday and Wednesday, the 19th and 20th December, 1902, and that the first sittings for the taking of evidence should be held at the Court House, Wallungong, on Tuesday, the 16th December, at 10.30 a.m.

As the Commission desired to sit first day to day continuously, the Secretary was directed to write to the Under Secretary, Department of Mines, asking for the necessary assistance. A letter in accordance with this resolution was submitted and approved.

The Secretary reported that, by direction of the President, he had written the following letters, which were read and approved:—

1. Dated 4/12/02, to Mr Barry, solicitor, as to date of meeting.
2. Dated 4/12/02, to Under Secretary for Mines, asking for advance of £50 for expenses.
3. Dated 4/12/02, to Under Secretary for Mines, asking for railway ticket order book.
4. Dated 4/12/02, to Under Secretary for Mines, asking for authority to obtain stationary, &c.
5. Dated 4/12/02, to Secretary Public Service Board, asking for assistance of shorthand writer and two typists.
6. Dated 4/12/02, to Under Secretary for Mines, asking for assistance of shorthand writer and two typists.
7. Dated 4/12/02, to A. A. Lynght, Esq., solicitor, as to date of meeting and proposed procedure.
8. Dated 5/12/02 do do

The Secretary submitted a draft of an advertisement to be inserted in each of the Sydney and Wallungong papers. The draft was approved.

The Secretary reported that he had made personal application to the Department of Justice for the use of the Court House, Wallungong, for the sittings of the Commission, but it had been found that the Court House could not be opened on Mondays and Thursdays, and the Justice Department suggested that the Town Hall should be secured.

The Commission then waited personally upon the Under Secretary, Department of Justice, who promised to arrange for the use of the Court House to be granted, as the Commissioners considered the Town Hall to be unsuitable.

Mr Barry (Carter and Barry, Solicitors), representing the Mount Kembla Coal and Oil Company, then waited on the Commission, and suggested that the investigations of the Commission should be conducted without allowing legal assistance to any of the parties, who should furnish the Commission with the names of their witnesses, but leave the questioning of those witnesses, the taking of evidence, to the Commission. By this plan, he said, all feeling would be eliminated from the proceedings, and the parties would be saved much expense.

The President, after consulting his colleagues, informed Mr Barry that the Commission proposed to be represented by Counsel, and if other parties desired to be represented the Commission would not see their way to refuse. Apart from that the admission of legal gentlemen would be a help to the Commissioners, upon whom much work would devolve if they had to attend the evidence themselves.

Mr Barry was informed that the Commission intended to visit the mine on Tuesday and Wednesday. He then withdrew.

The meeting then adjourned.

J. CLARKE, Secretary, 17th December, 1902.

Minutes read and confirmed at meeting on 22nd December, 1902.—C. E. E. MURRAY, President,
December 22, 1902.

MINUTES OF MEETING

Tuesday, 16th December, 1902

[The Commission met at 10.50 a.m. at the Railway Station, Wollongong.]

Present.—His Honor Mr. District Court Judge Murray (President), D. A. W. Robertson, Esq.,
D. Brinkin, Esq.

The Commission drove to Mount Kembla Mine, which they entered by the Main Tunnel, turning off along the No. 1 Right engine road. The tracks leading into the 30 acre gull were inspected, and, after proceeding to the end of the No. 4 Right engine road, the Commission returned by the travelling road parallel to it.

Mr. W. Rogers, Mine Manager, Mr. Hotchkiss, Under Manager and Mr. Morrison, Fireman, accompanied the Commission on this inspection.

The Commission then adjourned until next day.

J. GARNICK, Secretary, December 16th, 1902

Confirmed.—C. E. R. MURRAY, President,
December 22, 1902.

MINUTES OF MEETING

Wednesday, 17th December, 1902

[The Commission met at Wollongong.]

Present.—His Honor Mr. District Court Judge Murray (President), D. A. W. Robertson, Esq.,
D. Brinkin, Esq.

The Commission drove to Mount Kembla Mine, which they entered by the Main Tunnel, accompanied by Mr. W. Rogers, Mine Manager, Mr. Hotchkiss, Under Manager, and Mr. Morrison, Fireman. They proceeded along the Main Tunnel as far as the crosscut shaft and, turning, on the way, past the No. 3 Right, No. 4 Right, and No. 5 Right roads. After inspecting the furnace the Commission traversed No. 5 Right rope road, and proceeded through the workings to Powell's Flat, Peter's Flat, Stafford's level, thence to the [sic] gull and through the workings to the back heading of No. 1 Right rope road. Then, what were taken to be indications of fire at the time of the explosion were seen, and samples of apparently oxidized coal dust were taken for purposes of analysis. The Commission then inspected level No. 31, and in the first line of cut through of this level other indications of fire were found. Specimens of coal dust were taken from a heap in the bottom of the mine for analysis also. The Commission returned by way of No. 1 Right engine road.

The Commission then adjourned until Monday, 22nd December, at their Room, 72a Phillip-street Sydney.

J. GARNICK, Secretary, December 17, 1902

Confirmed.—C. E. R. MURRAY, President,
December 22, 1902.

MINUTES OF MEETING

Monday, 22nd December, 1902

[The Commission met at the Board Room, No. 72a Phillip-street, Sydney, at 11 a.m.]

Present.—His Honor Mr. District Court Judge Murray (President), D. A. W. Robertson, Esq.,
D. Brinkin, Esq.

The minutes of the three preceding meetings were read and approved.

It was noted that the Commission should sit at Wollongong on Tuesday, 23rd January, 1903, and following days for the purpose of taking evidence. The Secretary was instructed to so notify all persons concerned.

The Secretary reported having written to the Principal Under-Secretary asking for the extension of the Commission for one month as required at the meeting on the 16th instant. The reply of the Principal Under-Secretary (dated 18th December, 1902), was read and received. The Secretary was instructed to acknowledge the receipt of the Under-Secretary's minute extending the Commission, and to ask for a further extension of one month.

A letter from the Secretary to the Mount Kembla Coal and Oil Company, containing a list of witnesses whom the Company desire the Commission to examine, was received, and the Secretary was instructed to inform the Company that their request would be acceded to. (Dated 18th December, 1902).

A letter from the Secretary to the Mt. Kembla Coal and Oil Company (dated 18th December, 1902), asking that, in the event of certain witnesses being called, they might be examined in Sydney, was received. Instructions were given to reply that the request would be granted.

A letter from George Lloyd, agent, Rydney, offering to give evidence, was received, and the Secretary reported having written to Mr. Lloyd asking what was the nature of the evidence he could give. The Secretary's answer was submitted.

A letter from Mr. Lloyd, submitted dated 18th December, 1902, stating that he had been instructed to appear before the Commission on behalf of (a) representatives of persons who were, or should be, victims of the explosion; (b) employees of Mount Kembla Colliery, and (c) the Illawarra Colliery Employees' Association, was received. The Secretary was instructed to ask Mr. Lloyd for a list of the witnesses whom he proposed to call, with an estimate of the time, their examination would occupy.

A letter from the Honorable the Minister for Mines was received dated 18th December, 1902, appointing Mr. W. B. Pratt to be Assistant Recorder of the Commission.

A letter dated 18th December, 1902, was received from Mr. A. A. Williams, Chief Inspector of Coal mines, forwarding a photograph of Mount Kembla Mine, with particulars noted thereon from the evidence given by the witnesses at the Commission's sittings regarding the explosion.

The Secretary suggested an amended draft advertisement for insertion in the newspapers in mining districts, together with a paragraph to be supplied to the papers inviting persons possessed of information respecting the existence of the mine to give it into the Commission to communicate with the Secretary. The advertisement and paragraph were approved.

After discussion, it was resolved that for miners from the Howards District attending to give evidence the Commission should pay 15s per day together with the necessary meals and travel home; for other witnesses it was resolved to adopt the District Court scale of fees.

It was further resolved that, in order to facilitate the keeping of a proper check, witnesses should be required to sign an Attendance Book each day they were assembled as witnesses upon the Court on subpoena, and that their check only be paid for the days on which their attendance could be substantiated by their signatures in that Book.

The Commission then proceeded to consider the evidence taken at the Gorman's Inquest, in suspension with the 11th of the mine.

At 1.55 the Commission adjourned for lunch, resuming at 2.30 p.m.

The Commission further considered the evidence.

The Secretary was instructed to write to the Mines Department for a copy of the Mining Act of 1878, and in case of there was any record in the Department of any person having been found in Mount Kembla Mine prior to 21st July, 1902.

A quantity of formal correspondence respecting the supply of a Railway Ticket Order Book, the Royal Commission Act No. 25-1904, the Depositions at the Inquest, the forwarding of the Board Room, the arrangements to inspect the mine, etc., etc., was read and approved.

At 4.40 the Commission adjourned until next day.

J. GARRICK, Secretary, December 12th, 1901.

Continued.—C. E. R. MURRAY, President.

MINUTES OF MEETING

Tuesday, 25th December, 1902.

[The Commission met at 10 a.m. on Tuesday, 25th December, 1902, at the Board Room, No. 71a, Phillips Street, City.]

Present.—His Honor Mr. District Court Judge Murray (President), D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The minutes of last meeting were read and confirmed.

The Secretary reported that he had written a number of letters as directed by the Commission on the previous day. The letters were read and approved.

The Secretary reported that he had written to the Government Analyst asking their office to make an analytical and analytical tests of the specimens of coal dust taken at the reporters of the Mount Kembla Coal Mine.

The Commission instructed the Secretary to obtain for them a copy of Dr. Mahalanobis's report on railway explosions.

The Secretary submitted particulars of the work expended to date, amounting to £7 1s 3d. The expenditure was approved.

The Commission then adjourned until Tuesday, 28th instant.

J. GARRICK, Secretary, December 25th, 1902.

Continued.—C. E. R. MURRAY, President,
December 30th, 1902.

MINUTES OF MEETING

Tuesday, 30th December, 1902.

[The Commission met at the Board Room, 71a, Phillips Street, Sydney, at 10 a.m.]

Present.—His Honor Mr. District Court Judge Murray (President), D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The Minutes of the previous Meeting were read and confirmed.

A letter from Mr. George Lyell, owner of Synaggon, giving particulars of the nature of the evidence he desired to give before the Commission was read, and the Secretary was directed to inform Mr. Lyell that the Commission, while thanking him for his offer to give evidence, did not think it would be necessary to put him to the trouble of attending for that purpose.

The Secretary was directed to request Mr. Lyell, and the Secretary of the Mount Kembla Company respecting the list of witnesses asked for.

The Commission then proceeded with their reading of the depositions taken at the Gorman's Inquest.

At 1.5 p.m. the Commission adjourned for lunch, resuming at 2.15 p.m.

After the adjournment the Commission continued their reading and consideration of the depositions taken at the Gorman's Inquest.

At 4 p.m. the Commission adjourned until next day.

J. GARRICK, Secretary, December 30th, 1902.

Continued.—C. E. R. MURRAY, President,
January 7th, 1903.

MINUTES OF MEETING

WANGANUI, 11th DECEMBER, 1902.

[The Commission met at the Board Room, No. 11a, Philip street, Wanganui, at 9.30 a.m.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Ritchie, Esq.

A letter from Mr A. Stevenson, of Southland, intimating a request at Mount Kaitike, in which he offered to attend as a witness, was received. The Secretary was requested to obtain further information from Mr Stevenson as to the nature of the evidence he could give.

The Commission then proceeded with the further consideration of the evidence taken at the inquest.

At 12.30 p.m. the Commission adjourned until Tuesday, the 16th of January at Wanganui.

J. GARRETT, Secretary, December 11th, 1902.

Confirmed.—C. E. R. MURRAY, President.

January 1th, 1903.

MINUTES OF MEETING

JANUARY, 6th JANUARY, 1903.

[The Commission met at the Court house, Wanganui, at 11.15 a.m. in the Judge's Room.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Ritchie, Esq.

Letters from Messrs J. W. Bailey, Johnathan May, Simcox, and Mrs A. Stone were read, and the Secretary was instructed as to the replies to be sent.

The Commission then adjourned to the Court room. Mr Wade, on behalf of the Mount Kaitike Coal Company, objected to Mr Ritchie's sitting as a member of the Commission, in view of certain statements made by Mr Ritchie when giving evidence at the Coroner's Inquest. Mr Wade appealed to Mr Ritchie to withdraw.

The President expressed every confidence in Mr Ritchie as a perfectly fair, independent, unbiased, unprejudiced and honest member of the Commission.

Mr Ritchie said his conviction would be based entirely on the evidence brought before the Commission, apart altogether from any opinion he may have previously formed.

Mr Wade expressed himself as perfectly satisfied to go on after what His Honor and Mr Ritchie had said.

Mr Lynght submitted a number of recommendations from the Mount Union Delegates Board, and from the Mount Kaitike Branch of the Union.

Mr Lynght then asked Mr T. R. Morgan, whose evidence was taken.

At 1 p.m. the Commission adjourned until 2 p.m.

At 2 p.m. the examination of Mr Morgan was continued, and he was cross examined by Messrs Wade and Brown-Smith.

The Commission decided to sit each week on Tuesdays, Wednesdays, and Thursdays, while taking evidence of local witnesses in Wanganui.

At 5.15 p.m. the Commission adjourned till 9.30 a.m. next day.

J. GARRETT, Secretary, January 6th, 1903.

Confirmed.—C. E. R. MURRAY, President.

January 7th, 1903.

MINUTES OF MEETING

WANGANUI, 7th JANUARY, 1903.

[The Commission met at 9.30 a.m. in the Judge's Room, Court house, Wanganui.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Ritchie, Esq.

The Minutes of the meetings held on 20th December, 1902, 21st December, 1902, and 6th January, 1903, were read and approved.

It was resolved that the depositions and exhibits put in at the Coroner's Inquest be put in as evidence before the Commission.

At 10 a.m. the Commission adjourned to the Court room, sitting until 1 p.m., and from 2 p.m. to 5.15 p.m.

The evidence of the following witnesses was taken:—Buggess, S.; Maguire, J.; O'Sullivan, E.; Quinn, M.

At 4.40 p.m. the Commission adjourned until 9.15 a.m. next day.

J. GARRETT, Secretary, January 7th, 1903.

Confirmed.—C. E. R. MURRAY, President.

MINUTES OF MEETING

THURSDAY, 8th JANUARY, 1903.

[The Commission met at 9.15 a.m. in the Judge's Room, Court house, Wanganui.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Ritchie, Esq.

The Minutes of the previous meeting were read and confirmed.

A letter from Mr J. Ryan, offering to give evidence, was received, and the Secretary was directed to inform Mr Ryan that he would be summoned on some subsequent day.

The Secretary was directed to ask the Mount Department for a copy of the report of an accident which occurred through a fall of the roof of a silvery in South Wales.

IXth

At 9:30 the Commission adjourned to the Court-room, for the purpose of taking evidence. They sat from 9:30 till 1, and from 2 till 5 p.m.

The following witnesses were examined.—Mr. G. Smith, Mr. F. McDonald.

At 4 p.m. the Commission adjourned till 11:30 a.m. next Tuesday.

J. GARRICK, Secretary, January 16th, 1903.

Continued.—C. E. R. MURRAY, President,
January 16th, 1903.

MINUTES OF MEETING

THURSDAY, 13th JANUARY, 1903.

[The Commission met in the Judge's Room, Wollongong Court-house, at 11 a.m.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Ritchie, Esq.

The minutes of the previous meeting were read and confirmed.

The accounts for the period between December 19th and January 12th, amounting to £17 17s. 7d., were read in detail and approved by the Commission. The Secretary was instructed to ask the Under Secretary for 25s. to take the necessary steps to replenish the Commission's advance by the amount expended to date £11 12s. 10d.

Foreign correspondence was submitted and approved as written.

The Commission adjourned to the Court-room at 11:30 a.m., sitting till 1 p.m., and from 2 p.m. till 4:15 p.m.

The following witnesses were examined.—Mr. J. Sedgwick, Mr. J. Kay.

At 5:15 p.m. the Commission adjourned till 9:30 a.m. next day.

J. GARRICK, Secretary.

Continued.—C. E. R. MURRAY, President.

MINUTES OF MEETING

WEDNESDAY, 14th JANUARY, 1903.

[The Commission met in the Judge's Room, Wollongong Court-house, at 9:30 a.m.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Ritchie, Esq.

The minutes of the previous meeting were read and confirmed.

It was resolved that steps be taken to discontinue the evidence of witnesses at the German's request, but not put in as exhibits, at that request, should be put in as exhibits before the Commission.

At 10 a.m. the Commission adjourned to the Court-room, sitting till 1 p.m., and from 2 till 4:55 p.m.

The following witnesses were examined.—Mr. J. May, Mr. A. Holden.

At 4:55 p.m. the Commission adjourned till 9:30 a.m. next day.

J. GARRICK, Secretary, January 14th, 1903.

Continued.—C. E. R. MURRAY, President.

MINUTES OF MEETING

THURSDAY, 15th JANUARY, 1903.

[The Commission met at 9:30 a.m. in the Judge's Room, Court-house, Wollongong.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Ritchie, Esq.

The minutes of the previous meeting were read and confirmed.

Letters were received from Mr. Stevenson, Hastings River; and Mr. Dawson, Moss Vale, which the Secretary was instructed to acknowledge.

Foreign correspondence with the Under Secretary, Department of Mines, was submitted and approved.

At 10 a.m. the Commission adjourned to the Court-room, sitting till 1 p.m., and from 2 to 3 p.m.

The following witnesses were examined.—J. Freeman, J. Smith.

At 3 p.m. the Commission adjourned till 9:30 a.m. on Tuesday next.

J. GARRICK, Secretary, January 15th, 1903.

Continued.—C. E. R. MURRAY, President.

MINUTES OF MEETING

THURSDAY, 16th JANUARY, 1903.

The Commission met in the Judge's Room, Court-house, Wollongong, at 9:30 a.m.

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Ritchie, Esq.

The minutes of the previous meeting were read and confirmed.

The Secretary submitted details of the expenditure between 19th and 19th instant, amounting to £18 12s., which was passed by the Commission; and the Secretary directed to ask for the advance to be replenished by that sum.

A letter from Mr. J. M. Bailey, as to evidence which he desires to give before the Commission, was received, and the Secretary was instructed to inform him that he would be called later on.

The Secretary was directed to write to the Principal Under Secretary, asking for the advance of the Commission by one month.

Letters.

Letters were received from the Under Secretary for Mines and Agriculture regarding expenses of staff, and report of assistant to South Wales.

A letter was received from the Institution of Surveyors, N. & W., asking the Commission to investigate the necessity for adopting mining surveys to post a geophysical estimation. The Secretary was instructed to reply that the matter would receive consideration.

The Secretary submitted a letter which he had written to the Under Secretary for Mines and Agriculture regarding the payment of Mr. Evans, the assistant shorthand writer. The letter was approved.

At 10 a.m. the Commission adjourned to the Court room, sitting till 1 p.m., and from 2 till 4.30 p.m.

The following witnesses were examined.—Mr. J. Ellis, Mr. W. Marshall, Mr. E. Scott.

At 4.15 p.m. the Commission adjourned until next day at 9.30 a.m.

J. GARRICK, Secretary, January 20th, 1933.

Continued.—C. E. R. MURRAY, President.
January 21st, 1933.

MINUTES OF MEETING

Wednesday, 21st January, 1933.

The Commission met in the Judge's Room, Court House, Wellington.

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Birkie, Esq.

The minutes of the last meeting were read and confirmed.

A letter from the Under Secretary for Mines was read, stating that Mr. Pratt is to be paid only for time employed.

A letter from the Government Analyst, giving the results of his tests of two samples of coal dust from Maori Kaitake, was read. The Secretary was instructed to obtain for him samples of the coal in the rim of the back loading where the dust was taken from the wall of coal.

The Secretary was further directed to obtain samples of dust from the roadway in No. 1 Mine. Excl. between the 4th Right and the 4th Left.

At 10 a.m. the Commission adjourned to the Court room, sitting till 1 p.m., and from 2 till 3.30 p.m.

The following witnesses were examined.—P. Harvey, M. A. Ginn, C. Harrow, W. Harby.

At 3.30 p.m. the Commission adjourned until 9.30 next day.

J. GARRICK, Secretary, January 21st, 1933.

Continued.—C. E. R. MURRAY, President.
January 22nd, 1933.

MINUTES OF MEETING

Thursday, 22nd January, 1933.

[The Commission met in the Judge's Room, Court House, Wellington, at 9.30 a.m.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Birkie, Esq.

The minutes of last meeting were read and confirmed.

The Secretary was instructed to write to the Sheriff and ascertain whether the use of a Court at Raitangi could be granted to the Commission for use after the taking of evidence at Wellington shall have been completed, also to arrange for others for the Sheriff, on the issue of the office at present in use and advise on this matter.

A letter was received from the Under Secretary for Mines and Agriculture stating that the Government Printer would prefer the evidence to be printed as complete, not as the inquiry proceeded.

At 10.15 a.m. the Commission adjourned to the Court room, sitting till 1 p.m., and from 2 till 3 p.m.

The evidence of the following witnesses were taken.—J. McLeod, S. Mulgrew, J. Reynolds, C. Jackson.

At 3 p.m. the Commission adjourned until 9.30 a.m., Friday next.

J. GARRICK, Secretary, 22nd January, 1933.

Continued.—C. E. R. MURRAY, President.

MINUTES OF MEETING

Friday, 23rd January, 1933.

[The Commission met in the Judge's Room, Court House, Wellington, at 11.15 a.m.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Birkie, Esq.

The Secretary submitted particulars of the amount expended during the period between the 19th and 26th instant, £23 10s 8d, and was directed to ask the Under Secretary for Mines to reimburse the Commission's Advances Account by that sum.

A letter was received from the Sheriff, stating that the Commission might have the use of the Land Appeal Court for its sittings in Sydney.

A letter was received from Mr. Colston, of Melbourne, offering to give evidence. The Secretary was instructed to ask Mr. Colston for particulars of the evidence he desires to give before the Commission.

At 11.30 the Commission adjourned to the Court Room, sitting till 1 p.m., and from 2 till 4.

The following witnesses were examined.—Mr. S. Wynn, Mr. J. Morrison.

At 4 p.m. the Commission adjourned until 9.30 a.m. next day.

J. GARRICK, Secretary, 23rd January, 1933.

Continued.—C. E. R. MURRAY, President.

Italy

MINUTES OF MEETING

Wednesday, 26th January, 1903.

[The Commission met at the Judge's Room, Wollongong Court House, at 9.30 a.m.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Ritchie, Esq.

The minutes of the last two meetings were read and confirmed.

A letter was received from the Under Secretary for Mines and Agriculture, asking that a copy of Mr. Jonathan May's statement, which the Commission declined to accept in evidence on the 16th instant, be supplied to the Department. The Commission decided that, as the statement was not admitted in evidence, they could not comply with the Under Secretary's request.

A letter was received from the Under Secretary for Mines and Agriculture, with further reference to the method of payment of Mr. Paul's Assistant Boardman's wages.

At 10 a.m. the Commission adjourned to the Court Room, sitting from 10.40 to 11.55, and from 2.10 to 4 p.m.

The following witnesses were examined.—Henry John, W. Leverington, Alexander McDonald.

At 4 p.m. the Commission adjourned until 9.30 a.m. next day.

J. GARRICK, Secretary, 19th January, 1903.

Confirmed.—C. E. R. MURRAY, President.

MINUTES OF MEETING

Thursday, 27th January, 1903.

[The Commission met at 9.30 a.m. in the Judge's Room, Wollongong Court House.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Ritchie, Esq.

The minutes of the last meeting were read and confirmed.

After formal correspondence had been submitted, the Commission adjourned to the Court Room, sitting from 10 a.m. till 1 p.m., and from 2 to 3.30 p.m.

The following witnesses were examined.—A. McDonald, Thos. Mear, Thos. Johnson.

At 3.30 p.m. the Commission adjourned until 2 p.m. on Monday, 3rd February.

J. GARRICK, Secretary, 2nd February, 1903.

Confirmed.—C. E. R. MURRAY, President.

MINUTES OF MEETING

Monday, 30th February, 1903.

[The Commission met at the Land Appeal Court, Darlinghurst, at 2 p.m.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Ritchie, Esq.

The following witness was examined.—John Morrison.

At 3 p.m. the Commission adjourned until 9.30 a.m. next day.

J. GARRICK, Secretary, 2nd February, 1903.

Confirmed.—C. E. R. MURRAY, President.

MINUTES OF MEETING

Tuesday, 3rd February, 1903.

[The Commission met at 9.30 a.m. in Mr. Harrison's Room, at the Land Appeal Court.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Ritchie, Esq.

The minutes of the previous meeting were read and confirmed.

Formal correspondence was read and received.

A letter was received from the Under Secretary Department of Mines and Agriculture, asking for an estimate of the probable cost of the Commission. The Secretary was instructed to prepare one on the supposition that the Commission will conclude its work in 175 working days, but to allow the Department, when forwarding the estimate, that it can only be regarded as a rough approximation.

It was resolved that the Commission should report for the transmission of business on Mondays at 10.30 a.m. other meetings to be for the taking of evidence only.

It was decided to recommend the Under Secretary for Mines and Agriculture to grant £2 to the Clerk's Office, and Court Keeper, Wollongong, for extra services rendered to the Commission while taking evidence there during January.

At 10.15 a.m. the Commission adjourned to the Land Appeal Court, sitting till 1 p.m., and from 2 till 3.30 p.m.

The evidence of the following witnesses was taken.—Mr. J. Morrison, Mr. J. Brown, Mr. Higgins.

At 3.30 p.m. the Commission adjourned till next day.

J. GARRICK, Secretary, 2nd February, 1903.

Confirmed.—C. E. R. MURRAY, President.

MINUTES OF MEETING

Wednesday, 4th February, 1903.

[The Commission met at the Land Appeal Court, Darlinghurst, at 10 a.m.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Ritchie, Esq.

The following witness was examined.—A. A. Allinson, Esq., Chief Inspector of Coal Mines.

At 1 p.m. the Commission adjourned.

J. GARRICK, Secretary, 4th February, 1903.

Confirmed.—C. E. R. MURRAY, President.

REAY

MINUTES OF MEETING.

THURSDAY, 27th FEBRUARY, 1903.

[The Commission met at the Lord Appeal Court, Darlinghurst, at 10 a.m.]

Present: His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. E. Dickinson, Esq.

The minutes of the following witness were taken—A. A. Atkinson, Esq., Chief Inspector of Coal Mines.

At 4 p.m. the Commission adjourned.

J. GARRICK, Secretary, 5th February, 1903.

Confirmed.—C. E. H. MURRAY, President.

MINUTES OF MEETING.

MONDAY, 29th FEBRUARY, 1903.

[The Commission met at Buckingham Court House at 2 p.m.]

Present:—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. E. Dickinson, Esq.

The Minutes of the meetings held on January 28 and on February 2nd, 2nd, 4th, and 5th were read and confirmed.

The Secretary submitted particulars of the expenditure of the Commission for the weeks ended January 31st, and February 7th, amounting to £17 7s 6d and £2 17s 3d respectively, and was authorized to apply to the Under Secretary for Mines and Agriculture for the advance amount to be repaid to the extent of the amount expended.

An anonymous letter signed "Bath Mine" was read.

The Secretary submitted an estimate of the probable cost of the Commission, based on the past expenditure, and on the assumption that the Commission would not suffer any loss. Dividends were given that the Under Secretary for Mines is informed of the amount of the estimate, roughly £1,000.

At 7.15 the Commission adjourned to the Lord Appeal Court, sitting at 4 p.m.

The following witness was examined.—Mr. A. A. Atkinson, Chief Inspector of Coal Mines.

At 4 p.m. the Commission adjourned until next day.

J. GARRICK, Secretary, 5th February, 1903.

Confirmed.—C. E. H. MURRAY, President.

MINUTES OF MEETING.

THURSDAY, 26th FEBRUARY, 1903.

[The Commission met at the Lord Appeal Court, Darlinghurst, at 10 a.m.]

Present:—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. E. Dickinson, Esq.

The following witness was examined.—Mr. A. A. Atkinson.

The Commission adjourned from 1.15 to 2 p.m., when the examination of Mr. Atkinson was continued.

At 4 p.m. the Commission adjourned till next day.

J. GARRICK, Secretary, February 26th, 1903.

Confirmed.—C. E. H. MURRAY, President.

MINUTES OF MEETING.

WEDNESDAY, 11th FEBRUARY, 1903.

[The Commission met at the Lord Appeal Court, Darlinghurst, at 10 a.m., and sat till 2 p.m. and from 2 p.m. till 4 p.m.]

Present:—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. E. Dickinson, Esq.

The following witness was examined.—Mr. A. A. Atkinson, Chief Inspector of Coal Mines.

At 4 p.m. the Commission adjourned until next day.

J. GARRICK, Secretary, February 11th, 1903.

Confirmed.—C. E. H. MURRAY, President.

MINUTES OF MEETING.

THURSDAY, 12th FEBRUARY, 1903.

The Commission met at the Lord Appeal Court, Darlinghurst, at 10 a.m., and sat from 10.15 to 11 a.m. and from 2.15 to 4.15 p.m.

Present:—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. E. Dickinson, Esq.

The following witnesses were examined.—Mr. A. A. Atkinson, Chief Inspector of Coal Mines; and Mr. E. H. Gillingham.

At 2.15 p.m. the Commission adjourned, as counsel were not prepared to continue the further examination of Mr. Atkinson until they had read through the remainder of his evidence, given by him the morning.

J. GARRICK, Secretary, February 12th, 1903.

Confirmed.—C. E. H. MURRAY, President.

MINUTES OF MEETING

Monday, 18th February, 1935

The Commission met in Mr. Henson's room at the Court-house, Darlington, at 10.30 a.m.

Present: His Honour Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The minutes of the meetings held on 5th, 10th, 11th, and 12th February were read and confirmed. Personal correspondence was dealt with.

At 11 a.m. the Commission met in the Local Appeal Court, rising at 1 p.m. They sat again from 2 till 4 p.m.

The following witness was further examined:—A. A. Ashmore, Esq., Chief Inspector of Coalminers.

At 4 p.m. the Commission adjourned till next day.

J. GARRICK, Secretary, February 16th, 1935

Confirmed.—C. E. R. MURRAY, President

MINUTES OF MEETING

Tuesday, 19th February, 1935

The Commission sat at 10 a.m. at the Local Appeal Court, Darlington.

Present: His Honour Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The Commission sat from 10 a.m. to 1 p.m., and from 2 p.m. to 4 p.m.

The following witnesses were examined:—J. W. Bailey, T. Goffin, A. A. Ashmore, Chief Inspector of Coalminers.

At 4 p.m. the Commission adjourned till next day.

J. GARRICK, Secretary, February 17th, 1935

Confirmed.—C. E. R. MURRAY, President.

MINUTES OF MEETING

Wednesday, 20th February, 1935

The Commission met at the Local Appeal Court, Darlington, at 11.45 a.m., and sat till 1 p.m., resuming again at 2 p.m. and sitting till 4.15 p.m.

Present: His Honour Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The following witness was examined:—W. Brown, Chief Inspector, Newcastle.

At 4.15 p.m. the Commission adjourned until next day.

J. GARRICK, Secretary, February 19th, 1935

Confirmed.—C. E. R. MURRAY, President.

MINUTES OF MEETING

Thursday, 21st February, 1935

[The Commission met at the Local Appeal Court, Darlington, at 12 a.m., sitting till 1 p.m. and from 2 p.m. till 4.15 p.m.]

Present: His Honour Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The following witnesses were examined:—W. Brown, M. Gray, J. Pattinson.

At 4.30 p.m. the Commission adjourned till next day.

J. GARRICK, Secretary, February 19th, 1935

Confirmed.—C. E. R. MURRAY, President.

MINUTES OF MEETING

Monday, 25th February, 1935

[The Commission sat at the Treasury, Markyate street, Sydney, from 11 a.m. till 1 p.m., and from 2 p.m. till 4.25 p.m.]

Present: His Honour Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The following witness was examined:—Mr. A. E. O. Sellers, Manager, South Buth and Belknap Collieries.

At 4.25 p.m. the Commission adjourned until next day.

J. GARRICK, 23rd February, 1935

Confirmed.—C. E. R. MURRAY, President

MINUTES OF MEETING

Tuesday, 26th February, 1935

[The Commission sat at the Supreme Court, Sydney, from 10 a.m. till 1 p.m., and from 2 p.m. till 4.10 p.m.]

Present: His Honour Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The following witness was examined:—Mr. A. E. O. Sellers, Manager, South Buth and Belknap Collieries.

At 4.10 p.m. the Commission adjourned until next day.

J. GARRICK, Secretary, February 24th, 1935

Confirmed.—C. E. R. MURRAY, President

INDEX

MINUTES OF MEETING.

WEDNESDAY, 25th FEBRUARY, 1903.

[The Commission met at the Supreme Court from 2 p.m. till 4.40 p.m.]

Present.—His Honor Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The following witnesses were examined.—Mr. D. McFadden, Manager, West Wyalusing Railway.

At 4.40 p.m. the Commission adjourned till next day.

J. GILMORE, Secretary, February 25th, 1903.

Continued.—C. E. E. MURRAY, President.

MINUTES OF MEETING.

THURSDAY, 26th FEBRUARY, 1903.

[The Commission met at 9.30 a.m. at the Supreme Court, King's Cross, Sydney.]

Present.—His Honor Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The minutes of meetings held on 15th, 17th, 18th, and 19th instant were read and confirmed.

A letter dated 16th instant was received from Mr. James May asking for copies of plans prepared by Mr. Campbell, as to be allowed to use them. Secretary's reply was read, advising Mr. May that he might see the plans at the office of the Commission.

A letter dated 15th instant was received from the Under Secretary for Mines, forwarding a letter dated 11th inst., sent by Mr. Clarence Vickers to the President, suggesting that certain questions be called in witnesses. It was decided to place the letter before Mr. Wade, counsel for the West. Adelaide Company.

Letters were received from Messrs. Slater, Hogg, and Patterson, witnesses, asking for further payment for expenses. The Commission decided to grant Mr. Slater an additional day's fee, 20s., and expenses, 7s. 6d.; Mr. Hogg, the same; and Mr. Patterson, 18s. fee, and 7s. 6d. expenses.

A letter was received from the Government Analyst, dated 16th instant, giving the results of his analysis of the mud from the face of No. 3 main shaft boring.

The Secretary was instructed to write to the Principal Under Secretary asking for the extension of the Commission for one month.

A letter dated 25th February, 1903, was received from Mr. W. Brown, Chief Inspector, Northern District, forwarding two documents referred to in his evidence.

The Secretary submitted details of the records for the period between 9th and 21st February, including 17s. 1d. The expenditure was approved; and the Secretary was instructed to apply for the advance amount to be reimbursed by that sum.

Accounts from various newspaper proprietors, received through the Government Printer, for 47 1/2s., were passed for payment.

At 9.30 a.m. the Commission sat for the taking of evidence, continuing till 2 p.m. and from 2 p.m. till 3.45 p.m.

The following witnesses were examined.—Mr. S. H. Wetherburn, Surveyor, Mount Kembla Mines, Mr. A. E. O. Selous, Manager, North Bells and Bellambi Collieries.

At 3.45 p.m. the Commission adjourned till Monday, 2nd March, at 2 p.m.

J. GILMORE, Secretary, February 26th, 1903.

Continued.—C. E. E. MURRAY, President.

MINUTES OF MEETING.

MONDAY, 2nd MARCH, 1903.

[The Commission met at 2 p.m. at the Supreme Court, Sydney.]

Present.—His Honor Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The following witnesses were examined.—W. Hay, J. Ross.

At 4 p.m. the Commission adjourned till next day.

J. GILMORE, Secretary, March 2nd, 1903.

Continued.—C. E. E. MURRAY, President.

MINUTES OF MEETING.

TUESDAY, 3rd MARCH, 1903.

[The Commission met at 9.30 a.m. at the Supreme Court, Sydney.]

Present.—His Honor Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The minutes of the meetings held on 25th, 26th, 27th, and 28th February, and on 2nd March, were read and confirmed.

The Secretary submitted a statement of the cash expended between 25th and 28th February, 1903, £28 12s. 8d., which was approved, and the Secretary was instructed to apply to the Under Secretary for Mines with a view to replenish the advance account by that sum.

A letter was received from the Police Department regarding the claim of Mr. John Brown, a witness, for payment of further fees and expenses. The Commission approved of the payment of an additional day's fee, 20s., and coach fare, 3s., directing that the latter be paid to the coach proprietor direct, and that 2s. be deducted from the balance of payment of coach fare already made to Mr. Brown, but not paid by him to the coach proprietor.

A letter was received from Mr. J. Goodwin stating his desire to give evidence before the Commission.

A

lxviii

A letter was received from the Under Secretary for Mines conveying the Minister's approval to payment of a bonus of £5, to Sheriff's Office Dogs of Wollongong, as recommended by the Commission.

At 12 a.m. the Commission adjourned to the Court House, sitting till 11.45, and from 1.45 till 4.50 p.m.

The following witnesses were examined—Mr J. Dan, Mr G. Lorch.

At 4.50 p.m. the Commission adjourned till next day.

J. GARNICK, Secretary, March 1st, 1903.

Concluded—C. E. R. MURRAY, President.

MINUTES OF MEETING

Wednesday, 6th March, 1903.

[The Commission met at 10 a.m. at the Supreme Court, Sydney, sitting till 12.45 p.m., and from 2.45 p.m. till 4 p.m.]

Present—His Honour Judge Murray (President), D. A. W. Robertson, Esq.; D. Bickler, Esq.

The following witnesses were examined—Mr J. C. Jones, Dr J. R. M. Robertson.

At 4 p.m. the Commission adjourned till next day.

J. GARNICK, Secretary, March 1st, 1903.

Concluded—C. E. R. MURRAY, President.

MINUTES OF MEETING

Thursday, 6th March, 1903.

[The Commission met at the Supreme Court, Sydney, at 10 a.m., sitting till 12.45 p.m., and from 2.45 p.m. till 4 p.m.]

Present—His Honour Judge Murray (President), D. A. W. Robertson, Esq.; D. Bickler, Esq.

The following witnesses were examined—Dr. J. R. M. Robertson.

At 4 p.m. the Commission adjourned until Monday next.

J. GARNICK, Secretary, March 6th, 1903.

Concluded—C. E. R. MURRAY, President.

MINUTES OF MEETING

Friday, 6th March, 1903.

[The Commission met at the Supreme Court at 10 a.m., sitting till 2 p.m., and from 3 p.m. till 4 p.m.]

Present—His Honour Judge Murray (President), D. A. W. Robertson, Esq.; D. Bickler, Esq.

The following witnesses were examined—Dr. J. R. M. Robertson.

At 4 p.m. the Commission adjourned until next day.

J. GARNICK, Secretary, March 6th, 1903.

Concluded—C. E. R. MURRAY, President.

MINUTES OF MEETING

Thursday, 10th March, 1903.

[The Commission met at the Supreme Court at 9.50 a.m.]

Present—His Honour Judge Murray (President), D. A. W. Robertson, Esq.; D. Bickler, Esq.

The minutes of the meetings held on the 2nd, 4th, 5th, and 6th March, were read and confirmed.

Letters were read as follows—

- (1) From Principal Under Secretary, N.S.W., forwarding extension of Commission for one month.
- (2) From Mr. J. J. S. Macfarlane, Metropolitan Mines, offering to give evidence (3.2.03), and reply asking him to hold himself in readiness to come on receipt of notice.
- (3) From Mr. Jonathan May, re. Much being submitted to several appearing before Commission, who submitted that they had no desire to supplement their cases by calling Mr. May on this point.
- (4) To Mr. John Harris, re. expenses.

The Secretary submitted the accounts of the cash expended (£132/2/0) between 15th February and 10th March, which were approved by the Commission.

An account from Mack and Harris for the hire of a typewriter and table for the Commission at £1 1s 6d per month was passed for payment.

At 10 a.m. the Commission adjourned to the Court House, sitting till 12.45 p.m., and from 1.45 till 4 p.m.

The following witnesses were examined—Dr J. R. M. Robertson, Mr. W. Rogers.

At 4 p.m. the Commission adjourned till next day.

J. GARNICK, Secretary, March 10th, 1903.

Concluded—C. E. R. MURRAY, President.

Index

MINUTES OF MEETING

WEDNESDAY, 11th MARCH, 1903

[The Commission met at the Supreme Court at 10 a.m., sitting till 12 12 p.m. and from 1 45 till 4 p.m.]

Present.—His Honour Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The following witnesses were examined.—Mr. W. Rogers, Mr. J. C. H. Munnagoo.

At 4 p.m. the Commission adjourned till next day.

J. GARLAND, Secretary, March 11th, 1903.

Continued.—C. E. H. MURRAY, President.

MINUTES OF MEETING

THURSDAY, 12th MARCH, 1903

[The Commission met at 10 a.m., sitting till 12 30 p.m., and from 1 p.m. till 4 p.m.]

Present.—His Honour Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The following witnesses were examined.—Mr. W. Hamble, Mr. J. Jeffries.

At 4 p.m. the Commission adjourned till Tuesday next, 17th March, 1903.

J. GARLAND, Secretary, March 12th, 1903.

Continued.—C. E. H. MURRAY, President.

MINUTES OF MEETING

THURSDAY, 12th MARCH, 1903

[The Commission met at the District Court (No. 2, Kaitumahe, at 10 a.m., and sat for the taking of evidence till 1 p.m., and from 1 p.m. till 4 15 p.m.]

Present.—His Honour Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The following witnesses were examined.—Mr. W. Hamble, Inspector of Mines, Newcastle, Mr. J. Jeffries, Manager, Metropolitan Mine, Helensburgh.

At 4 15 p.m. the Commission adjourned till next day.

J. GARLAND, Secretary, March 12th, 1903.

Continued.—C. E. H. MURRAY, President.

MINUTES OF MEETING

WEDNESDAY, 18th MARCH, 1903

[The Commission met at No. 2 District Court at 10 a.m., and sat till 1 p.m. for the taking of evidence, and from 2 till 4 15 p.m.]

Present.—His Honour Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The evidence of the following witnesses was taken.—J. C. H. Munnagoo, Esq., Analyst and Assayer, Mines Department, Mr. J. Goodwin, Municipal Engineer, Auckland; T. Purton, Esq., Consulting Mining Engineer, Sydney, Mr. D. McGeehan, Colliery Manager, West Wairarapa.

At 4 15 p.m. the Commission adjourned till next day.

J. GARLAND, Secretary, March 18th, 1903.

Continued.—C. E. H. MURRAY, President.

MINUTES OF MEETING

THURSDAY, 19th MARCH, 1903

[The Commission met at the No. 2 District Court at 10 a.m., and sat for the taking of evidence till 1 p.m., and from 2 till 4 15 p.m.]

Present.—His Honour Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The following witnesses were examined.—P. J. Reynolds, W. Stoddart, Messrs. R. Ramsey, and A. A. Atkinson, Esq., Chief Inspector of Coal Mines.

At 4 15 p.m. the Commission adjourned till next day.

J. GARLAND, Secretary, March 19th, 1903.

Continued.—C. E. H. MURRAY, President.

MINUTES OF MEETING

FRIDAY, 20th MARCH, 1903

[The Commission met at 10 a.m. at No. 2 District Court, Sydney, and sat till 12 noon.]

Present.—His Honour Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The examination of Mr. A. A. Atkinson, Chief Inspector of Coal Mines, was concluded.

The Commission adjourned sine die.

J. GARLAND, Secretary, March 20th, 1903.

Continued.—C. E. H. MURRAY, President.

MINUTES

MINUTES OF MEETING

TUESDAY, 21st MARCH, 1903.

[The Commission met at Wellington at 9.30 a.m.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Widdie, Esq.

The Commission drove to Mount Kowhai, where they spent the day inspecting various portions of the workings, and made a number of tests for gas, with the kydages lamps. Full notes of the day's proceedings are incorporated with the Minutes of Evidence.

Mr. D. Widdie, Under Manager, Mount Kowhai, was examined at bar No. 57 regarding the testing of a pipe.

About 5 p.m. the Commission left Mount Kowhai and proceeded by train the same night to Edinburgh.

J. GILBERT, Secretary, March 14th, 1903.

Confirmed.—G. E. R. MURRAY, President.

MINUTES OF MEETING

WEDNESDAY, 22nd MARCH, 1903.

[The Commission met at the Metropolitan Coal Company's Mine, Edinburgh, at 10 a.m.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Widdie, Esq.

The Commission inspected the surface works and a portion of the underground workings, and then adjourned from 5 to 7.45 p.m., at which time they again met at the mine, and some experiments were made to test the inflammability of Mount Kowhai and Metropolitan coal dust, when suspended in the atmosphere in which an explosion is feared. Full particulars of these experiments are embodied in the Minutes of Evidence.

At 8 p.m. the Commission adjourned.

J. GILBERT, Secretary, March 23, 1903.

Confirmed.—G. E. R. MURRAY, President.

MINUTES OF MEETING

THURSDAY, 26th MARCH, 1903.

[The Commission met at No. 31 Young Street, Sydney, at 10 a.m., sitting till 12.45 p.m., and from 2 till 4 p.m.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Widdie, Esq.

The Commission discussed the evidence and deliberated upon their report.

At 4 p.m. the Commission adjourned.

J. GILBERT, Secretary, March 26, 1903.

Confirmed.—G. E. R. MURRAY, President.

MINUTES OF MEETING

WEDNESDAY, 1st APRIL, 1903.

[The Commission met at No. 31 Young Street, Sydney, at 10 a.m.]

Present.—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Widdie, Esq.

The minutes of the meetings held on 10th, 11th, 12th, 15th, 20th, 19th, 23rd, 24th, 25th, and 26th March, were read and confirmed.

Statements of the petty cash expended between March 11th and 26th (207 15s. 6d.) were submitted and the expenditure was approved.

A verbal application made by Mr. John Murray, Deputy Mount Kowhai, for a further allowance of expenses for attending as a witness was considered, and it was decided to grant him £5 in addition to the sum already voted.

Letters were read and accepted as follows:—

- (1) From Under Secretary for Mines and Agriculture regarding the printing of the evidence (26/3/03).
- (2) From Under Secretary for Mines and Agriculture regarding appointment of Mr. A. R. Gelling as junior clerk.
- (3) To Mr. W. Rogers, Mount Kowhai, asking for information as to production of 14th Report (27/3/03).
- (4) From Mr. W. Rogers in reply to above (11/3/03).
- (5) To Mr. G. Lefebvre, the Under Manager, Mount Kowhai, asking for information as to production of 14th Report (11/3/03).
- (6) To Mr. James Barr, asking him to return evidence sent to him for review (18/3/03).
- (7) To Mr. D. McGrouther, re same.
- (8) To Mr. J. C. D. Hargrave, re same.
- (9) To Mr. W. Widdie, re same.
- (10) To Dr. J. H. M. Holman, re same.
- (11) From Dr. J. H. M. Holman (see reply to above, and also drawing attention to a paper by Dr. Holman recently published (Vol. xxviii, page 26, "Transactions of Technical Institute of Mining Engineers") (21/3/03).
- (12) To J. Ashworth, Esq., M.F., Derby, thanking him for papers forwarded.
- (13) To Mr. A. S. Newman, Hastings Pier, informing him that Commission did not think it necessary to call him.

The Secretary was instructed to write to the Principal Under Secretary asking for further assistance of the Commission.

The

INDEX

The Secretary was also instructed to send telegrams to Mr Rogers and Mr Leitch asking them to describe method by which 4th Flight pilfers were captured up to and at the time when the extinction of pilfers was completed.

The minutes of the 4th Symposium by the Commission of Month Kanika and Meteorological wires on 5th and 20th March were read and passed, and directions were given to incorporate them with the evidence.

The Commission then proceeded with the consideration of the evidence, sitting till 1 p.m., and from 2.15 till 4.15 p.m.

Recommendations Nos. 1 to 7 were dealt with.

At 4.30 p.m. the Commission adjourned till next day.

J. GUNSON, Secretary, April 1, 1935

Continued.—C. E. R. MURRAY, President

MINUTES OF MEETING

THURSDAY, 27th APRIL, 1935.

[The Commission met at No. 34 Young Street, Sydney, at 10 a.m.]

Present.—His Honor Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The Minutes of last Meeting were read and confirmed.

Letters to Mr J. Morrison, for Principal Under Secretary, and Dr. Robertson were read and approved.

A memorandum received from Dr. Robertson containing a quotation from a paper by Dr. Bradbury, published in the "Transactions of the Institution of Mining Engineers," Vol. 21, p. 26, was read and received.

The Commission then proceeded to further deliberate upon their report, sitting till 12.15 p.m., and from 2 till 4.15 p.m.

Recommendations 8, 9, 10, 11, and 12 were dealt with.

At 4.15 p.m. the Commission adjourned till next day.

J. GUNSON, Secretary, 2nd April, 1935

Continued.—C. E. R. MURRAY, President.

MINUTES OF MEETING

FRIDAY, 28th APRIL, 1935.

[The Commission met at No. 34 Young Street, and sat from 10 a.m. till 1, and from 2 p.m. till 4.]

Present.—His Honor Judge Murray (President); D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The Commission further discussed their report, dealing with Recommendations Nos. 12 to 22.

At 4 p.m. the Commission adjourned till next day.

J. GUNSON, Secretary.

Continued.—C. E. R. MURRAY, President.

MINUTES OF MEETING

MONDAY, 30th APRIL, 1935.

[The Commission met at No. 34 Young Street, and sat from 10 a.m. till 1 p.m.]

Present.—D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The Commission proceeded to further consider their report, Recommendations Nos. 23 to 28 being dealt with.

At 1 p.m. the meeting adjourned till next day, but Mr. Robertson attended the office from 2 till 4 p.m., and drafted a number of suggestions for next meeting.

J. GUNSON, Secretary

Continued.—C. E. R. MURRAY, Commissioner.

MINUTES OF MEETING

TUESDAY, 1st MAY, 1935.

Mr. Ritchie attended at No. 34 Young Street, at 10 a.m., and from 10 to 12 prepared a number of suggestions for the Report.

[The Commission met at 12 noon, sitting till 1 p.m., and from 5 till 4 p.m.]

Present.—D. A. W. Robertson, Esq.; D. Ritchie, Esq.

The preparation of the draft of the report was proceeded with.

At 4 p.m. the Commission adjourned.

J. GUNSON, Secretary

Continued.—C. E. R. MURRAY, Commissioner.

Index

MINUTES OF MEETING

TUESDAY, 14th APRIL, 1960

[The Commission met at 55, Young Street, Sydney, at 10 a.m.]

Present—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Skelton, Esq.

The minutes of the meetings held on the 12th, 14th, 15th, and 16th instant were read and confirmed. A letter dated 14th instant was received from the Under Secretary for Mines respecting the forwarding of the evidence, and another, dated 15th instant, forwarding a list of papers brought or required in the chamber. An account for £1 10s 6d, for the hire of a typewriter and table for one month, was submitted and approved.

The Commission then proceeded with the preparation of their report, sitting from 11.30 a.m. to 2.15 p.m. lunch, and adjourned at 4 p.m.

J. GUNN, Secretary, 14th April, 1960

Confirmed—C. E. R. MURRAY, President.

MINUTES OF MEETING

WEDNESDAY, 15th APRIL, 1960

[The Commission met at No. 55, Young Street, Sydney, at 10 a.m.]

Present—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Skelton, Esq.

A letter dated 14th April, 1960, was received from the Mount Kembla Coal Company, forwarding a memorandum in response to a letter received by the Company from Mr. McIntosh, and containing notes of the report made by Messrs. McGeehan and Haskins jointly to Messrs. Kembla Mines, on the 14th August, 1957. The report was forwarded as having in Mr. Haskins's evidence respecting the report, he having stated that Mr. McGeehan's findings in the 14th Report, whereas the notes forwarded, written by him, contained no mention of the fact.

The Secretary was directed to write to Mr. Haskins, asking if he could explain the discrepancy between his evidence and the memorandum.

The Commission then proceeded with the preparation of their report, sitting till 12.45, and from 2.00 to 4 p.m., when they adjourned till the 17th.

J. GUNN, Secretary, 15th April, 1960

Confirmed—C. E. R. MURRAY, President.

MINUTES OF MEETING

THURSDAY, 17th APRIL, 1960

[The Commission met at No. 55, Young Street, Sydney, at 10 a.m.]

Present—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Skelton, Esq.

The Secretary read the letter which he had written to Mr. Skelton, as directed at last meeting, and it was approved.

The Secretary reported that the note for which Miss Blackwell, typeset, had been engaged was completed. It was decided that she be sent out to report herself to the Public Service Board, and that the Under Secretary for Mines and Agriculture be so informed. The Secretary was directed to state at the same time that Miss Blackwell had given the Mount Kembla Mines the performance of her duties, and to announce that she be paid for the overtime she had worked.

A letter was received from the Principal Under-Secretary forwarding an extension of the Commission for one month from 15th instant.

The Commission proceeded with the consideration of their report, sitting till 12.15 p.m., and from 2.00 to 4 p.m., when they adjourned.

J. GUNN, Secretary, 17th April, 1960

Confirmed—C. E. R. MURRAY, President.

MINUTES OF MEETING

FRIDAY, 19th APRIL, 1960

[The Commission met at No. 55, Young Street, Sydney, at 10 a.m.]

Present—His Honor Judge Murray (President), D. A. W. Robertson, Esq., D. Skelton, Esq.

A letter dated 15th April, 1960, was received from the Under Secretary for Mines and Agriculture, forwarding two copies of the "Colliery Gazette," brought under the notice of the Agent General in London, by Mr. Jimmy Delmont, mining engineer, Chislehurst, who directed attention to correspondence in the journal regarding the recent explosion at the McLaren Pit, Chislehurst.

A letter was also received from Inspector Skelton explaining the discrepancy between his evidence and the notes he gave to Mr. McGeehan, as referred to in the minutes of 14th instant.

The Commission sat until 12.15, and from 2.00 to 4 p.m., preparing their report. At 4 p.m. they adjourned.

J. GUNN, Secretary, 19th April, 1960

Confirmed—C. E. R. MURRAY, President.

INDEX

MINUTES OF MEETING

THURSDAY, 23RD APRIL, 1961

[The Commission met at No. 24, Young Street, Sydney, at 10 a.m.]

Present—His Honour Judge Murray (President); D. A. W. Robertson, Esq.

The Commission met from 10 a.m. till 12.45 p.m., and from 2 till 4 p.m., considering the minutes and preparing their Report.

At 4 p.m. the Commission adjourned.

J. GARRICK, Secretary, 23rd April, 1961

Confirmed—C. E. H. MURRAY, President

MINUTES OF MEETING

FRIDAY, 24TH APRIL, 1961

[The Commission met at No. 24, Young Street, Sydney, at 10 a.m.]

Present—His Honour Judge Murray (President); D. Ebdin, Esq.

The preparation of the Report was proceeded with; the Commission sitting from 10 till 12.45, and from 2 till 4 p.m., when they adjourned.

J. GARRICK, Secretary, 24th April, 1961

Confirmed—C. E. H. MURRAY, President

MINUTES OF MEETING

SATURDAY, 25TH APRIL, 1961

[The Commission met at No. 24, Young Street, Sydney, at 10 a.m.]

Present—His Honour Judge Murray (President); D. Ebdin, Esq.

The preparation of the Report was proceeded with from 10 a.m. till 12 noon, when the Commission adjourned.

J. GARRICK, Secretary, 25th April, 1961

Confirmed—C. E. H. MURRAY, President

MINUTES OF MEETING

SUNDAY, 27TH APRIL, 1961

[The Commission met at No. 24, Young Street, Sydney, at 10 a.m.]

Present—His Honour Judge Murray (President); D. A. W. Robertson, Esq.

The Commission proceeded with the consideration of their Report until 12.45 p.m.

On resuming at 2 p.m. Mr. Ebdin also attended when the preparation of the Report was further proceeded with.

The Commission adjourned at 4 p.m., but Mr. Ebdin remained until 5 p.m. in consultation with the Report.

J. GARRICK, Secretary, 27th April, 1961

Confirmed—C. E. H. MURRAY, President

MINUTES OF MEETING

THURSDAY, 28TH APRIL, 1961

[The Commission met at No. 24, Young Street, Sydney, at 10 a.m.]

Present—His Honour Judge Murray (President); D. A. W. Robertson, Esq.; D. Ebdin, Esq.

The Commission sat from 10 till 12.45, and from 2 till 4 p.m., considering their report. The minutes of meetings held on 21st, 22nd, 23rd, 24th, 25th, 26th, and 27th April were read and confirmed.

The Secretary submitted details of the cash expenditures between 14th March and 28th April amounting to £15 15s. 6d., which was approved.

At 4.15 p.m. the Commission adjourned.

J. GARRICK, Secretary, 28th April, 1961

Confirmed—C. E. H. MURRAY, President

MINUTES OF MEETING

WEDNESDAY, 29TH APRIL, 1961

[The Commission met at No. 24, Young Street, Sydney, at 10 a.m.]

Present—His Honour Judge Murray (President); D. A. W. Robertson, Esq.; D. Ebdin, Esq.

The Commission sat from 10 to 12.45 and 2 to 4 p.m., in the preparation of their report.

J. GARRICK, Secretary, 29th April, 1961

Confirmed—C. E. H. MURRAY, President

MINUTES

INDEX

MINUTES OF MEETING

YESSMAN, 30th April, 1963

[The Commission met at 54, Young-street, Sydney, at 10 a.m.]

Present.—His Honour Judge Murray (President), D. A. W. Robertson, Esq., D. Bicklin, Esq.

The Commission sat from 10 to 12.45, and from 2 to 4.20 p.m. in the preparation of their report.

At 4.30 p.m. the Commission adjourned.

J. GUNZIN, Secretary, 30th April, 1963.

Confirmed.—C. E. R. MURRAY, President.

MINUTES OF MEETING

YESSMAN, 1st May, 1963

[The Commission met at No. 54, Young-street, Sydney, at 10 a.m.]

Present.—His Honour Judge Murray (President), D. A. W. Robertson, Esq., D. Bicklin, Esq.

The Commission sat from 10 to 12.45 and 2 to 4 p.m. in the preparation of their report.

At 4 p.m. the Commission adjourned.

J. GUNZIN, Secretary, 1st May, 1963

Confirmed.—C. E. R. MURRAY, President.

MINUTES OF MEETING

YESSMAN, 2nd May, 1963

[The Commission met at No. 54, Young-street, Sydney, at 9.30 a.m.]

Present.—His Honour Judge Murray (President), D. A. W. Robertson, Esq., D. Bicklin, Esq.

The Commission sat from 9.30 to 12.30 in the preparation of their report.

At 12.30 p.m. the Commission adjourned.

J. GUNZIN, Secretary, 2nd May, 1963

Confirmed.—C. E. R. MURRAY, President.

MINUTES OF MEETING

YESSMAN, 3rd May, 1963

[The Commission met at No. 54, Young-street, Sydney, at 10 a.m.]

Present.—His Honour Judge Murray (President), D. A. W. Robertson, Esq., D. Bicklin, Esq.

A letter dated 4th of May, from Under Secretary of Mines and Agriculture, was received, forwarding report of commission to "O'Day's Guardian," from Mr James Ayrault, Mining Engineer.

A letter was received from the Principal Undersecretary forwarding an extension of the Commission for two weeks from 5th May, 1963.

The Commission then proceeded with the consideration of their report, and adjourned at 12.50 p.m.

J. GUNZIN, Secretary, 3rd May, 1963

Confirmed.—C. E. R. MURRAY, President.

MINUTES OF MEETING

YESSMAN, 10th May, 1963

[The Commission met at No. 54, Young-street, Sydney, at 9.30 a.m.]

Present.—His Honour Judge Murray (President), D. A. W. Robertson, Esq., D. Bicklin, Esq.

The Commission sat from 9.30 to 12.30 in the preparation of their report.

At 12.30 the Commission adjourned.

J. GUNZIN, Secretary, 10th May, 1963

Confirmed.—C. E. R. MURRAY, President.

MINUTES OF MEETING

YESSMAN, 10th May, 1963

[The Commission met at No. 54, Young-street, Sydney, at 2 p.m.]

Present.—His Honour Judge Murray (President), D. A. W. Robertson, Esq., D. Bicklin, Esq.

The minutes of meetings held on the 19th, 26th, and 30th April, and 1st, 2nd, 3rd and 10th May were read and confirmed.

The Commission then read and signed their report.

The Commission adjourned at 3.50 p.m.

J. GUNZIN, Secretary

Confirmed.—C. E. R. MURRAY, President.

MOUNT KENIA COLLEGE DISASTER

CORONER'S INQUEST-DEPOSITIONS.

DISCUSSION

		1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	2988	2989	2990	2991	2992	2993	2994	2995	2996	2997	2998	2999	3000
Admiral, A. A. - Relations to chief	10	36	90																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														

Depositions and Exhibits in connection with the Mount Kembla Colliery Disaster Inquest.

New South Wales,
to wit.

Depositions held at the Court-house at Wollongong, in the State of New South Wales, commencing on the 1st day of August, one thousand nine hundred and two, and concluded on the 15th day of September, one thousand nine hundred and two, before me, Charles Coffey Russell, one of the Coroners of our Sovereign Lord the King, for the State aforesaid, on view of the bodies of William Mearns, Henry Mearns, and William Nelson, at the Manger at the Mount Kembla Colliery, there and then lying dead. Upon the oaths of James Kirby, James Dean, Arthur Wollongong Young, George Colburn, Arthur John Holland, Edmund Forwooder, William John Foster, John Shepley James, Joseph Henry White, William Coleman, George Madden, William Henry Beckard, and such other of Wollongong aforesaid, who, having been sworn and charged to require (on the part of our said Lord the King) when, where, how, and by what means the said William Mearns, Henry Mearns, and William Nelson came to their death, do, upon their oaths, say that the deceased William Mearns, Henry Mearns, and William Nelson died at Mount Kembla Mine, in the county of Camden, and State of New South Wales, on the 31st day of July last, from carbon monoxide poisoning produced by an explosion of fire-damp ignited by the naked lights as used in the mine, and accelerated by a series of consecutive explosions starting at a point in or about the number one seven level back headings, and extending in a westerly direction to the main gail, marked 11 paces on the mine plan.

In witness whereof, on with the said Coroner on the 1st day aforesaid, here in this deposition set their hands and seals, this day and year aforesaid.

CHARLES COFFEY RUSSELL, Coroner.

JAMES KIRBY, Foreman.

ARTHUR WOLLONGONG YOUNG,

ARTHUR JOHN HOLLAND,

WILLIAM J. FOULTER,

JOSEPH HENRY WHITE,

GEORGE ARTHUR MADGON,

JAMES DEAN,

EDWARD COLBURN,

RICHARD FAIRWEATHER,

JOHN SHADLEY JAMES,

WILLIAM COLEMAN,

WILLIAM HENRY BECKARD,

James.

New South Wales

Incorporation and deposition of witnesses, taken on oath before me, Charles Coffey Russell, one of the Coroners of our Sovereign Lord the King for the State of New South Wales, this 1st day of August, 1902, at the Court-house at Wollongong, in the said State, on view of the bodies of William Mearns and Henry Mearns, (lying dead at the Mount Kembla Mine.

Thomas Mearns, having been sworn, states: I am a miner, and reside at Mount Kembla, the bodies now pointed out to the jury by me are the bodies of—William Mearns and Henry Mearns.

Sworn and made, at Mount Kembla, this 1st day of
August, 1902, before me,—

THOMAS MEARNS.

CHAS. C. RUSSELL, Coroner.

William Rogers, on oath, states: I am the manager of Mount Kembla Mine, the body now pointed out to the jury by me is that of William Nelson, who was the underground manager of this mine.
Sworn and made, at Mount Kembla, this 1st day of
August, 1902, before me,—

WILLIAM ROGERS.

CHAS. C. RUSSELL, Coroner.

Inquest adjourned, for the purpose of obtaining further evidence, until 11 o'clock on Monday, the 15th day of August, 1902, at the Court-house, Wollongong.—CHAS. C. RUSSELL, Coroner.

Inquest resumed, in pursuance of adjournment, at 11:30 a.m., on the 11th day of August, 1900, at the Court-house, Wallingborg.—Omas C. Bennett, Coroner.

Mr. Deane Smith, instructed by the Crown Solicitor, appears for the Crown.

Mr. G. D. Bury appears for the proprietors of the Mount Kemble Mine.

Examined by James-August Smith.—Ada Francis Stewart, sworn, states: I am the wife of William Stewart. I reside with him at Mount Kemble. Henry Stewart resided with me and my husband, he was a brother of William Stewart. I resided Thursday, the 31st July last, my husband was on that date employed as a miner at the Mount Kemble Colliery, he left home that morning at ten past 2 in his work, he was employed on the front shift, I have not seen him since; I have seen his dead body once at the colliery, in a shop there, Henry Stewart was also on the 31st July employed as a miner in the colliery, he left home that morning to go to work at 7 o'clock. I have not seen him since; I have seen his dead body once with that of my husband at the mine-house. I saw the bodies on the 1st August (Friday), Henry Stewart was employed on the back shift, I do not know how they met their deaths. [No questions.]

Sworn and made, at the Court-house, Wallingborg,
on the 11th day of August, A.D. 1900.—

ADA F. STEWART.

Omas C. Bennett, Coroner.

Examined by James-August Smith.—Edward Stewart, sworn, states: I am a coal-miner, I reside at Kemble Heights. I am employed at the Mount Kemble Colliery as a miner, Henry and William Stewart were brothers of mine, I resided the 31st July last (Thursday), I arrived in the forenoon about half past 6, I was working in the distant known as No. 6 shaft, it was No. 10 level, I was working with Francis Stewart, Stewart left me at ten minutes past 3 that day, I continued working on, I was with George Walker, we worked on till about 4 o'clock, Walker was working close to me, Stewart and I were working in what is known as a cut through, and Walker and I were about 100 yards from the main heading, we were not aware that anything unusual had happened; there was nothing unusual about the air or the particular place we were working in, Walker and I got out our clothes and put them on, and got our tools; we followed the main road known as the winding road, out to the shaft, I began when the men heading in, we went towards that, when we were about 40 or 50 yards from the main heading I noticed a small lake bubbling up, Walker remarked that it was new water; the current is known as hot water, I said, "I believe this pit is dry", I said that in a half hour, we continued on to the main heading; we went there, in the air it was like a hot steam, when we got there we found the fire and bottom of the heading, we did not see any bodies, I still could not see that I had missed Henry, only it was a stranger; we still continued along the main heading on the engine road, about that heading there is a narrow right across the road, when we got through the narrow we saw the body of Hugh McLellan, his body was at the side of the rail, I put my hand inside his shirt, he was dead as far as I can say, we left McLellan there and proceeded towards the furnace, that was still going towards the mouth of the tunnel, we continued on to John's Flat, there we found a horse lying dead, I then placed my lamp down towards the fire to try the air, that was in fact there was my horse (lamp), the lamp burned and I knew there was no black smoke, Walker and I then turned on my horse and mine, we still continued to go towards the furnace, we had then to go about 50 or 100 yards to reach the shaft, to that 50 or 100 yards we passed several men, and horses lying on the road, I did not count them, but there were several. I know a man named Meredith, we passed him, he was lying against the rail, he was alive, he had a lamp burning, he was a Welsh man, I said to him, "Come on, Joe," he had his senses, but he seemed like a man intoxicated. He said, "Come and have a smoke", he had no other conversation with me. Walker and I went on, before we left Meredith he made me complain of any kind, he did not say anything about an accident having happened. Meredith was after that, he might not have; after we left Meredith Walker and I met Henry Kelly and Ernest Adams, we met them on the fire, they had safety lamps, they were trying to keep the air who was there from (some of them were trying to reach them). Kelly said there was a explosion in No. 1, but that the air was good where he was then, I went to Walker, "You had better go out, George, you are an old man"; Walker then left me to go up and I went to the Little Flat section, I carried three bodies from the Little Flat with the assistance of others, one of the bodies was a dead body (that of John Ryan), the other two were alive, the two latter were Thelmer Olsen and a man whose name I do not know, I then went towards the shaft, right across, there were several men lying about there, I cannot say whether they were dead or alive at the north right section I met Meredith and Adam Evans, before that we left the bodies at Mt. Pleasant flat, and we passed, Price, and Kelly went to the south right section, we left the first bodies at Mt. Pleasant flat because the air was good there, when we met the two bodies I said to Mr. "Did you see Wall" (meaning my brother), he said, "You're Wall's wife", Mt. Pleasant then told the lamp round and I saw my brother lying with his shoulder up against the rail, Mt. Pleasant said, "I've got more than you", my brother was alive, I could hear him breathing; my brother Henry was lying alongside my brother William, he was lying near on his shoulder. I could not say whether he was on the floor or against the rail, I cannot say whether he was alive, I did not measure him to see, I thought both were alive, I said to Mt. Pleasant, "I'll go out and tell the women"; the next day, yesterday night, I was out to bed at what we had come through, but it was worse than what it was on Monday, I was out to bed, and I then carried a man to Mt. Pleasant, I cannot say whether he was alive or dead, that was back to Mt. Pleasant towards the entrance, I was very nearly exhausted from the nature of the air, Kelly and Price and they were right, Adams and Mt. Pleasant remained where I left my brothers, I met Meredith and Sullivan at Mt. Pleasant, they said I went towards the entrance down the main road, we went along the engine road to No. 3 and then down into the travelling road, we did not see any of the men; I did not go back to that section of the mine that day, and I did not see my brother again till I saw their dead bodies next day in the engine-house; I do not know what caused their deaths.

Cross-examined by Mr. Deane Smith. The place where I was working was about 1,000 yards from the entrance to the mine, when I reached off the air was in several sections, we had gone about 500 yards from the face when we met the first body, I did not try to see there, but I could escape the smell all the time, we did not move that body, we did not attempt to carry it to the part in which we found

[illegible]

To a large extent I have been working in the mine for one year and nine months; I never noticed any change that would lead me to suspect that an outbreak of this kind might occur.

To Mr. Anne Smith: During the year and nine months I have been there I have never seen any result from gas but I have heard blower but I have never been able to locate them with my tool, I cannot mention any particular place where I have heard blower, I have only worked on two occasions—one is called the fourth left and the other is the furnace room on the third, I never reported having heard the blower to anybody.

[illegible]

To Mr. Barry: I know that the two Depository and safety lamps are, their securing and other record

Heard and made at the Court-house, Wallington, 1

His 11th day of August, A.D. 1900, before me —

Case 4: $H_{\text{max}} \leq C_{\text{max}}$. *Complete*.

ETHAN ALLEN MCKENNA

Reminiscences of Sister Margaret Brady.—Aunt Helen, twenty, sister: I am the wife of William Nelson, my late husband was the miller manager of the Mount Mansfield Chaffery. I remember Thursday, the 21st July last, my husband left home that morning to go to work about a quarter to 7, he was then quite well, he was in his health, I did not see him after that, his bed, I only body was brought home to the house, that was early in the morning of the 1st August, I have no knowledge as to what caused his death, my husband had been working his twelve years in the mill, the last two months as under manager. [No question.]

Made and more at the Court house. Wellcome, the

21th day of August, A.D. 1902, before me, —

David C. Reardon, Director

ADNERS, NIELSEN

Examined

[illegible]

know it was against the air and was the best; on the way I met Adam Frost, he is alive now, he was standing at the mouth of the daylight heading, he was right, I saw a lot of others, I cannot tell you their names; there might have been about ten or twelve, they were walking out by the same way. I overtook them, I think they are all alive now. I did not notice the smell as I went along, I did not see anything unusual at all in going out, Charles Smith was one of the men, Thomas Johnson was another, and John Russell was another, that is all I can remember, I went out, I put chains on workings over and over again twice a day, I always lugged with accident, I did not go up to see the lower; I lugged with dry resistance, it was a little heavy sometimes, if I can get anything to clamp it with, I clamp it, if I cannot, I do not, I do not put any spurs about the head when I am doing so.

Cross-examined by Mr. Lynght. The sound I heard came in the same direction as the air that was coming up in my head, I thought the noise came from the next level on the left where the whistles was, from the direction of the main travelling road, I thought the noise came from No. 49 head, I heard a noise like that some months ago when I was working a pillar in the shaft section, I could not what caused that, it was the fall of the roof. I myself had taken out the timber, I do not think I ever heard a noise like this before coming from any other cause than the taking out of timber, the falling of a roof will sound, but perhaps not so loud as the noise on this occasion, I went down about 10 yards from where I met Thomas and I met the last smell. I was still in the head when I took the smell, the last smell was travelling against the air, I thought it would back up in my head, Mr. Kershaw asked me what the noise was, he did not say what he thought it was.

Cross-examined by Mr. Paley. During the two years and a half I have been a miner my work has been in both, coal and pillars: in the course of mining we very often break off at right angles into levels, the levels are 8 yards wide, we drive them 32 yards, no other side there is a pillar of coal, and, the pillars are 16 yards wide, there was a head to the right of the one I was working in, and the space between them was solid coal, called a pillar, it is shown in the plan by the dotted mark, when we are working a head it is surrounded with props, when we have finished a head the props are drawn, we work the head and leave the timber standing, and then we work the pillar, and then the timber is drawn from the pillar and the head, the timber is drawn to allow the roof to fall, that is the regular system of working; that is done to ease the miners, and to make things safer, that is the practice I have been used to at Kibble. I have not had experience of it anywhere else; I have worked at Newcastle, but not as a miner, a great number of pillars have been worked at Mount Kemble, I have heard the sound of the roof falling freely often during the two years and a half, and it is a sound I can never find any difference between those sounds and the sound I heard on the 31st July was that the sound I heard on the 31st July was a good deal louder. I put it down in being a bit of the roof, and went so with my work, I was a little alarmed. I do not remember whether I had heard a shot in my workings place that day, I have heard the sound of shooting, it is different as what I heard on the 31st July, I have fired many shots myself without any trouble or accident; I have always used coal dust (slump dust), I got that from the workings place; it is about 310 yards from the place where I was working to the face of the rope, when I speak of the rope I refer to the endless rope to which the slings are fastened, I heard the sound first on my left ear, the noise was to the left side of the head, when I say that the sound came from the heading on my left, that is speaking quite generally, when I heard the noise my mind was fixing the shot about 20 yards west behind me on the right-hand side of the head looking towards the face, I did not go into No. 1 right heading at all, the nearest point I got to there was about 20 yards from the face looking towards my working face, when I entered the previous level I did not see anything else in the air; I saw nothing unusual, the whistles light was not burning when I saw him, my light was burning all the time till I got out, the lights of the other men that I passed were all burning, Russell and Johnson were working higher up than me in the head, Johnson was working to the right of my working place in No. 50, I overtook a few of the men that were working in that direction a good distance from where I was working.

To the Coroner. I left the rest of the point shown on the plan just above the word "Plan", I was affected, I got a little giddy through the shock, when I got inside I was not affected in any way, the only thing that affected me was the shock, I came against the air the whole way.

To the Jurors. The man working to my working was not an abandoned working, I never fired the shot that I had made preparations for.

To the Coroner. I take the precautions which the Act provides when firing a shot.

To a Juror. The working that I thought had fallen in was one next to where I was, it is to the left of where I was working.

To Mr. Bruce Smith. I thought that the roof of the heading had fallen in.

Sworn and made, at the Courthouse, Walsingham,
this 16th day of August, A.D. 1902, after being
read to witness, and he appearing to understand,
and, before us,—
JOHN A. LADDAW,
Clerk.
Witness to oath,—
CHARLES MOORE, Justice-Magistrate.

CHAS. G. BLANCH, Coroner

Examined by Under-quester Bards.—*Witness Frederick* every, states: I am a miner, and reside at Mount Kemble, I have been working in the Mount Kemble Mine for about two and half years, I remember the 31st July last (Thursday), I was at work in the gallery on that day, I was at work on coal, with Thomas Smith as a mate, I was working in 49th right, No. 2 return, second string, head No. 50, Smith worked on the first shaft, he was at about 5 or half past 6, I was working on the back shaft, I was in to work at half past 8, and reached the place by 9, I found Smith at work when I went in, he and I worked together till he left me and went out at half past 1, shortly before Smith left me Mr. Russ and Nelson came in where I was working, they was about half past 12, they had a conversation with me about the quality of the coal, and then they went out, after Smith left I filled two slaps of coal, after that I went back in my head about 28 yards in 49th right and have some work, when I was about to get my head I heard a noise like distant thunder, I thought it was the effect of a heavy shot at a distance, I did not take any notice of it after I had had Smith I went back to finish my work up below, I left, I dropped up my place, and prepared to leave, I left my face between a quarter past and half past 2, when I left my face I slung away and put my clothes on to go home as if nothing had occurred,

occurred. I went down my hand towards the rope road the way I came, when I reached the rope road I found everything blown to pieces, all disorder like a wreck; that was the first time I found that anything had gone wrong; I was very anxious to know whether I could breathe, the air was bad, and a little warm, but good; I went with it for a distance of two inches, when I would turn into the main travelling road, I went along the main travelling road for a distance of 100 or 200 yards, then some more slight falls, but not heavy, when I got about 500 yards I saw a heavy fall, which I could not get through, I returned, then along the travelling road to the first cut through, and on to the rope road, that is known as No. 1 main rope road, I went along that as far as I could get—about 150 yards, I then met a considerable heavy fall 2 or 3 yards high, I was unable to get over that fall, I stood and gazed on it a while, and then turned back to another little cut, and though that cut to the travelling road again, I then continued on towards the tunnel mouth; I was blocked again about twice by falls; I then returned by a cut through on to the rope road again, up to that point I had not seen or heard anyone at all, I went along that rope road till I came to another obstruction, and then I went through a cut through on to the travelling road, I went along that for 300 or 400 yards and did not meet with any big falls—just some lower breaks and a few rocks here and there, I then came across two men, I walked right in between them, I struck out on the plain where I was I found them, it was about 10 ft. from the tunnel mouth or a little over, and it was in the main travelling road, I could not tell who the men were, I looked at one of them, he was alive, he was lying on his side, and his only lamp was blown down by his legs; it was not burning. He was breathing, but it was very weak and slow, I said to him, "Would you like to come out?" I got no answer from him, he seemed to be unconscious, I thought that it looked very much like Mr. Bates, but his face was in shadow, when I got hold of him to lift him I thought it was not an ordinary miner's dress, the second man was only about 5 feet away, he was lying face downwards on the road, there was no movement in him at all, he was as far as I could judge quite dead, but I did not look, I threw Mr. Wilson, I left the two men there and went on towards the tunnel mouth; I was some lights, the lights were 60 or 80 yards away, I called out for them to go outside and flash as soon as I long two men out who could not get out, I reasoned where I was, I said I would remain where I was till someone came; after that Mr. Wilson and a party came in and met me, I directed Mr. Bates and the party to where the bodies were lying; although the bodies were put out.

Continued by Mr. Bruce Smith. I did not need anything after I left the face at any time, the noise I heard was a rumble like distant thunder, I had never heard a noise like it before; it was too long a noise. It was a rumbling noise, it was something like the noise of artillery, there was no loud report, the noise got low and low, I did not smell anything till I got in the neighbourhood where there was thunder, and then I smelt a smell like sulphur. I have often heard the noise of a rail falling in the mine, I heard on this occasion was not a noise like that, I never suffered in any way from this, the first thing I noticed was the lightning flashes down, the door of the bottom-riding had disappeared altogether, I have found gas in that same noisy place, when I have tried shots, it was down in No. 2 and the shaft also, I did not say anything, only to my mate, I did not say anything because we saw it often, I know the rules, I know that it is my duty to where someone over me when I see gas; my reason for not reporting was that thing was not sufficient quantity to be worth talking about, I know that I ought to report any appearance of gas, if I notice on other that I did not report, there is no situation where the report is not, I have not seen any gas for two or three months, I have not seen anyone signal in that mine, I have known a man signal in that mine, his name was Edward Gallagher, he was stopped by gas, that was about ten years ago, Gallagher is dead now, I cannot say whether that case was reported, it was well known at the time, Gallagher was off a long time, I cannot say that more than I have known of my knowing, when an mine a full takes place it sounds like thunder frequently when you are at a distance.

Made and sworn, at the Court-house, Wellington.

The 19th day of August, A.D. 1902, before me—

Chas. C. BLANDA, Clergyman.

WILLIAM BROADHEAD

It is agreed that the portion of the mine ridge of No. 2 left to left undisturbed for the present, as with the further order of the Court.—Chas. C. BLANDA, Clergyman. Court-house, Wellington, 19th August, 1902.

Inquest adjourned, for further evidence, until 10 o'clock a.m., on Tuesday, the 25th day of August, A.D. 1902, at the Court-house, Wellington.—Chas. C. BLANDA, Clergyman. Court-house, Wellington, 19th August, 1902.

Inquest resumed, in presence of adjournment, at the Court-house, Wellington, on the 19th day of August, A.D. 1902, at 10 o'clock a.m.—Chas. C. BLANDA, Clergyman.

Continued by Mr. Bruce Smith.—William Broadhead, deceased, states: My copy of the rules is at home, it is in the shelf over my head. I read it sometimes, I know of the rule referred to in testimony, the known presence of gas in a mine causes a difference in the management of the mine, the difference is in having the lantern closer to the face, I know also that the known presence of gas might lead to the prevention of the use of naked light; I know that the lives of the miners are endangered by the use of naked light where there is gas, I can see that ought to report gas may lead to the loss of the lives of the miners, I have reported the presence of gas when I saw it was severe, when I saw it was regular. If I told you previously that I did not report it to an official I made a mistake, what I said yesterday is not true. I reported to Mr. David Evans last evening when I was in the shaft. Mr. David Evans is the head bookman on the district of the shaft; that is the only occasion on which I have reported gas. I cannot distinctly appear on other than I have reported, I have reported every time I have noticed gas since at all. I have never reported gas more than the air would get out, I never saw more, the gas I reported to Evans was mostly in the shaft, I told him that there was a good deal of gas in that part of the pit, and to keep the miners forward—there was slightly more than usual when I reported to Evans on the occasion I have mentioned, there was a good deal on that occasion.

Continued

Cross-examined by Mr. Lupton: I told the Chamber yesterday the Bureau knows there was gas, and I ought speak to the Bureau, when I did report to the Bureau he did not do anything to prevent the men, when I reported the gas to Mr. Daniel Evans, he said, "Oh, you saw some gas when you fired the shot," nothing more; I have had a conversation with Nelson and Druggery during the last twelve months, the quarter before last Druggery was our witness, and I told him that the gas was either a trap; I spoke to him when I was in the left hand No. 1 in Powell's Plot; I told him the gas was in Powell's Plot; when I told him that, he said, "We cannot do anything, only leave the men forward, Dearheart," he said it in more or less of that manner; the gas had exploded when the men were first in; it exploded when the shot went off; I also spoke to Druggery about gas higher up than Powell's Plot; it was not to Druggery I spoke then, it was to Nelson; I told him that the gas was poorer than that; it showed itself when you fired a shot, powder mist, Nelson said, "We will have to get the men a bit further forward," I will send no more men, and just get out of it," he said in more or less of that manner; I told him that I was working with him when I reported the gas to Nelson, Nelson is also now, when I reported the gas to Druggery, Druggery was my mate; it is about nine months ago that I had the conversation about the gas with Nelson; I cannot remember any other occasion on which I have reported gas, either to Nelson or Druggery, or anyone else; it is too long ago, but there has been time; I know of no occasion when the Bureau has done anything to prevent me before I knew of the presence of gas; Evans was the Bureau, he is living now, he pointed up a house, or a shed, or a shed (it was the shed); he wrote on the shed, "Don't do not go past this, get your light out, take your coat and go to and see the place will not," it was written on the shed with chalk; it is too long ago for me to say; on that occasion I did so; I was working behind the furnace in the shaft; that week plus about three years ago; on that occasion I did so; I was directed, when I found the gas out to the center the air carried it away; I cannot remember any other time when I had to see the gas out; I say that; about four months ago when I was working in the place I came to believe that the air was a bit dull and gray and the same law, I said it; I asked Mr. Rogers to be killed; I said the place was too hard and was very gruffed, and was too badly ventilated; Mr. Rogers advised the Bureau to shift or about half a mile down the rope road; I did not see Mr. Rogers look at my place; Mr. Letch came and looked at the place before I was killed; I told him Letch that it was a poor place to work in; I say that; place was dangerous; that place was marked by the Bureau with the date on the steel way; Evans was the Bureau who marked that place with the date; there is no other occasion during the last twelve months when I have observed or seen quantity of gas, the only proof, if I speak, I could not see a particle of the gas up to the top of the roadway; it was there in the morning, the location was shown up against the air, I think; I found the opinion that the explosion had started a considerable distance in the left, but I could not tell to hundreds of yards; I was too far away; I have no idea where the explosion started; I have never been in a mine when an explosion has taken place before; I did not notice any marks of burning, much, as I came out; I saw nothing that had been burnt north or south; the men were hurt when it was killed; there was nothing the Bureau knows the Bureau, I came about 5 or 6 yards down the rope road when I saw the explosion; all the men were hurt as I remember; there were more marks of burning as I went further down; I saw a ship with the top half of right against when I came up to the rope road; it was an iron ship; I noticed the gas was in the shaft workings that in the side workings; back side of level 35 we were working; no ventilation is blown into the waste workings; the coal when I was for men and men, and it was long for years, yards of gas gather in the waste workings; there is no ventilation put in to remove that gas.

Cross-examined by Mr. Lupton: I know that the Government Inspectors once found the mine pretty good in the gas; Mr. Atkinson is an experienced and capable man, he has been in Kewdale several times; he must have seen the waste workings; I have never been through the waste workings; I mean by "waste workings" places that have been worked, and then left; I know that the ordinary miner is not allowed in the waste workings; I never crossed the edge of the waste workings; I have seen Mr. Evans in the mine several times; I never told the sergeant about the conversation with Druggery and Nelson, because he did not ask me; he may have asked me a little about gas; I have forgotten; I do not think he did; to the best of my recollection, I do not think he did; I am pretty well positive; I do not remember his asking me about gas last Saturday; I do not remember saying personally that I did not report the gas because it was not much; when I thought of the conversation with Druggery and Nelson the morning, I could not be sure now, whether I had a conversation with the sergeant on Saturday last about gas; I remember in day; because the questions were pressed upon me; I must have last night as soon as I could; I did not say; I got home about dark; I spent some time the morning before; I was nearly all the time in the shaft; I went and got my lunch at half past 11; I did not tell Mr. Lupton or Mr. Kitchin about these conversations; I saw the gas when I was about; I saw a flash off, like a gas; I saw the red flag; the flag came from over the shot; it came from where the shot went off and back again to the same place; I just saw the one flash, and it was going; the quantity of powder used was, a pound of powder is used sometimes—maybe, half a pound, sometimes the hole is made at the top, sometimes in the middle, and sometimes at the bottom; and I have seen the flash from much of these places; I was also in the same kind of flash; the powder used was the plug powder for the first four or five years I did not know for or that so much; I have seen it for the last five or six years; I never looked for gas in the rock; I have never looked on the roof with my lamp in hand; when I went to work in the morning I always found a chalk mark on the working face; I know by that that it was safe, and I could go to work; the value of the shot of the dump is the value of the machine—that is, all miners and all miners; there is only one shaft at Kewdale; I have seen a shaft fired at a quarry in open daylight; I cannot say I have ever seen a flash from one; I know that some men's experience and account that the shot blew out; the reason the shot blew out is because it is not properly tamped; I know that I am liable to make a mistake in leaving the shot; I had the value in my book about reporting the appearance of fire; I do not think the place was dangerous when I saw the red flag; I have spoken of it—it was only ordinary; I know that if the manager finds that a place is dangerous the men are ordered, there must be strict regulations for the safety of the men; I know that if the manager refuses to carry out the Coal Mines Regulation Act he can be punished; I went next to Mr. Rogers himself and complained about the presence of gas; I know that Nelson is dead, and also Druggery; I was working with Thomas Smith, last quarter, also; it was last quarter I spoke to Druggery; I think I do not think that Smith was present when I spoke to Druggery; I spoke to Nelson the quarter before last; William Pott was my mate then; I think he was present when I spoke to Nelson; Evans is now in about a week, the Bureau is supposed to be about a week from the coal; Evans wrote on the front of the shed; I did not see Evans write on the shed;

been drawing the timber, but it had not felt"; I then went back into the pillars again; I then found David Evans, the farmer, there, before I went back I saw Deering and his men, and Walker, and Dixon, Deering placed the remark that there was a fire, he said he thought there was a fire, he was in an excited state, I told him to wait there and I thought I could find Evans very quickly, it was then I returned to the pillars and saw Evans, Deering and his men and Evans are dead, and Walker is alive in the hospital, I told Evans what the men had said, and that he had better come out to consult straight away with the men that had come down that part, he did not appear to know what had happened, he (Evans) returned with me to No. 4 light, the men were there where we got back, Evans told Deering to turn out and stay there till such time as we returned back in there, Evans tried to get along No. 5 right towards Powell's Flat to see the reason, I went with Evans as far as we could get, and then about six loads down, we were stopped by smoke and dust, we were unable to go further, Evans said, "We will get back to the men"; we returned to where we had left the men, but they were not there; Evans and I went from there up towards the furnace, where we got between No. 6 right and the furnace we were overtaken by seventeen or eighteen men; Chas. Bailey, Hunt, Dixon, John Allen, were some of the men, they are all alive, there were others, when we got to No. 6 right Evans suggested to open the doors at the point marked on the map in pencil with two small circles; they are wooden doors, the door in was opening in the right way, the men ran to No. 6 right, we opened the doors and that had the effect of turning the air back to the spread shaft, up till the time the doors were open the men were very excited, and they were afterwards also they wanted to get out very bad, one of the men said to my old No. 2, that was on the left-hand side of the main tunnel, round the outside of the 34-acre gulf, Evans said, "That is the way we will go", Evans left then, with all the men I have mentioned, I remained there with Bailey, Evans said to me, "There is only one real point that knows the men out by No. 2, and one had better stay behind in case my men were not should come", I was to stop my men from passing that point, Bailey said, "I suggested that they be for thirty minutes, Bailey remained with me for company; we walked very little except that the doors being open was keeping the air from coming in as Evans told me to wait as long as I thought my men were likely to come that way, Bailey and I stayed at the shaft, the doors being open almost smothered the air, while Bailey and I were there no man came down up; he said I then went to the spread shaft, we there met the relief party coming up from the mine Evans left until we got to the spread shaft it was between half an hour and forty minutes before that I saw Richard Walker lying in No. 6 right, Bailey was with me at the time, while I was standing with Bailey I saw a light coming about 40 or 50 yards down in No. 6 right, I went down to the light, Walker was there, and he was unconscious, he is dead now, his light was a very good one on the floor, however, Bailey and I carried Walker and laid him on the ridge side of the doors, that was to get him out of the foot air, at that time I did not notice anyone else there, there was another light burning lower down than Walker's, a few yards lower down, when we had taken Walker to the doors, I said to Bailey, "We will stay here for a few minutes and get a breath of air, and then we will go back and get his men"; we went back, we did not get his men; I saw twelve or thirteen men in a heap together all unconscious; they were propped, most of them, that was at the place where I had seen the light burning lower down than Walker's, George Dixon, David Hunter, Harry and William Harrison, Branning and Ben, Fidge, Peter Mann, and Richard Gallagher; that is about all I can remember; they are all dead; they were there where I saw them, and were propped, the two Miners were close together, sitting on the left-hand side of the road, side by side, I looked at all the men I have mentioned; the two Miners were alive, I have put three crosses (X.X.X.) to indicate where those twelve or thirteen men were lying; they were 250 or 300 yards down No. 6 right some road from Mat's Flat, I have put a mark on the map to indicate Mat's Flat, I have put a circle round it, I said to Bailey, when I saw the twelve or thirteen men, "We will try to make outside for a relief party"; the air was then a little better, but the air was taking its natural course, the air had not been improved where the men were lying in opening the doors, the opening of the doors did not bring the men within the short tunnel, it made no difference to them; the men that were in the heap were the same men that were with Deering when we had told him to stay where he was, if they had stayed they would have been all right, Bailey and I tried to get out for relief, and we met the first relief party there at Mat's Flat, Adam Frost was one of the party, Crowther and Rogers and Morrison were others, I took the party down No. 6 right to where we had left the men lying, we put all the men up in a sitting position, I think they were then all alive; we then commenced to carry them up to Mat's Flat, Walker was the first that was carried out; when we carried Walker out I saw Edward Edwards, he was at my left, he asked me if his brothers were alive and I told him they were, I found a very good (O'Brien) my left, he was not exactly unconscious, but seemed very motionless in the head, he is alive now, I took him out by the main haulage road till I got to the main haulage road, about 200 yards from the outside, I went that way because it was much shorter to get that way, and by that time the air had become much clearer, Kelly was with me when I took O'Brien out, I was out first, they may have been twelve minutes, and then back again in No. 6 right, they were others there who were taking to get out, I went in again by the main haulage road right through No. 6 right; I asked where I got back the two Miners were dead, and also several others, I saw several of the bodies brought out on steps to my left, (Gallagher was brought out by the shaft) the others, so was John Mann, they died two days after, I went out of the mine with bodies after another hour, when I went in with Mr. Johnson the manager of Bels and a party; I was with Dr. Robertson's party in the mine, Dr. Robertson and Evans and I went in, and we met Johnson's party inside, I went into the mine the next day (Friday, the 3rd August) with Mr. Cook's party, we went in the daylight tunnel and we did not find any broken in the tunnel, we followed the intake; we found a hole in the main haulage, where I have put an X, it was in No. 2 main haulage, they said it was Deering's hole, but I could not recognize it; it was about 200 yards from the 6th light over road where his body was found, his body was very much swollen, the head was out on the body; his arms were out on the body, I do not think the body was greatly torn about in other respects, after looking Deering's body we continued on, I went up along No. 2 main haulage in the left-hand of No. 2 main haulage to the horse.

Made and sworn, at the Court house, Wollongong, this

15th day of August, a. d. 1902, before me,

Chas. C. ROBERTS, Coroner.

W F 6862.

Report submitted, for further evidence, at Wollongong, the 20th day of August, a. d. 1902, at 10 o'clock a. m.—Chas. C. ROBERTS, Coroner. Court house, Wollongong, 15th August, 1902.

Tenant

Report narrated, in presence of adjutant, at the Court-house, Wallingford, on the 26th day of August, at 2 P.M., at 10 o'clock am.—(Capt. C. Brown, Coroner.)

Interrogated by Justice-Edward Smith.—(Michael Frost recalled, states:—) When we found in one of the birds of No. 1 man's bedding, we continued down the line of birds; we found seven bodies in different birds on the left hand of No. 1 man's bedding. I have marked the place on the map with three crosses (XXX), the bodies were found 20 to 30 inches from the line; some of the bodies were found close to the line; the bodies were Stanley, Jones, Williams, Howell, & McLaughlin; that is all I can remember. We carried the bodies out with stretchers put over the daylight. The body of John Frost was the found in one of these birds; when carrying the bodies out I noticed twelve little white rope rods to the westward. "O", I found bodies there that had been brought there by a party that were together in the mine. I intended to carry those bodies out that, I continued to go in and out in the rope rods to want to carry out the bodies that the parties on the rope rods brought there; I was on several times down the day to that point only; I was with Mr. Cook's party up to the time I found the seven bodies together; at that time there were two other parties who joined mine, the Johnson's, and my brother Adam's party; of the seven bodies only that of the young Adam seemed to be affected, it seemed to be injured a little about the last area, there was very little wrong with the other bodies; I do not think Adam was smothered about the time or hour.

Cross-examined by Mr. David Smith.—I am in the employ of the company; I receive my salary from my father; I am one brother's foreman; I receive my pay from my father as foreman; I lead the work wherever in the mine of having a foreman in control of the men engaged by my father; I do not receive any regular pay from the company apart from the wages I get from my father; I have no duties towards the company apart from my father's employment; my father has no official position in the mine; he simply continues to shift and at so much a ton to the outside. I have always been in my father's employ; I have no official position in the mine; I have been working in the mine for as near as I can say, twenty years; I have the geography of the shaft system of the mine only; the shaft system includes the several levels, rope rods and all the workings there; the north right rope rod and all the workings there; and the bodies on the left hand side of the shaft men's bedding; that is all that is included in the shaft system; that is the only part of the mine that I understood and know the run of thoroughly; I do not know No. 1 man's work. I only go there when my brother is not there; the place shows all the shaft workings thoroughly; I visit the mine on the 21st as a quarry to find some iron, as near as I can say, between 4 and 6, that was when I last went out; I went out the second time about 6 o'clock or after; I went in again about twenty minutes after and went out again at 6 or near as I can say, I got 2 in the morning; after I came out fairly I left a 24 in. drill, but I was quite sensible enough; but I was quite this way in the line, I am of opinion that the cause of the accident happened in No. 1 man's work; that is the result of my observations from the time I was in the mine from 7 o'clock on the morning of the 21st till 1 or 2 next morning; I am of the same opinion now; I have formed the opinion that the cause of the accident was when that part of the mine shown on the map by the red line; I could not say to what part of that area the rest of the explosion was; my observations do not enable me to say that; I say that the explosion occurred in that area because it was at that part of the mine that I saw things apart from their usual position; things went, the bodies and the place, down and showed up; the only dead men, down down out, circumstances diminished, falls in the roof, stoppage down out; I cannot think of any other indications that I noticed of an explosion having taken place; I did not see any shooting in that area; I saw indications of men having been injured; I did not see any shooting or any subsequent work, apart from the stopping of Adam; I saw no indication of this map up till now; I saw my body with the head and one arm off; that is the worst mutilation of all that I saw; the body of the boy Walter was also mutilated; part of his head was crushed in at the back; I have marked on the map the places where the bodies were found in red on the mine—No. 1, Douglas, C. Davis, S. Davis, A. Stanley, R. Tappan, R. McLaughlin, T. Williams, R. Howell, B. Walker, H. Stafford, J. Jones, all these were only one, that of the boy Walter (No. 8), found near where he was working; I think Frost was very close to his work; the men (Nos. 7 to 8 and 10 and 12) had been working within 50 yards of the places at which they were found; they had not got further away from their work; the bodies that were found outside the area marked with the red pencil were not known about at all; I do not know where these men were; there were symptoms of them—had been working; but where they died was no indication of where they had been working; the only dead bodies I saw in the area marked with red was where I have marked "O"; in No. 1 man's work, there were men or ten or more men working in the area marked with the red line on the day of the explosion; the bodies belonged to my father; the bodies that were found dead marked "O" were working between the point at which he was found and the place where the dead men (Nos. 1 to 10) were found; and other bodies were killed in the section, four of the bodies working on the fifth right of No. 1 man's bedding were got out after; the four men with a candle with a line down through the mine indicated where the bodies were working; they were working between the bodies and the work right rope rod; the other five or seven bodies were found dead, one close to Howell (No. 5); the position of that body was marked with a circle; three dead bodies were found at Francis' Flat; they had been working in beds close by where they were found; one dead body was found at Richard's Flat indicated by a circle on the map; two dead bodies were found at David's Flat, indicated on the map by two circles; the bodies were buried after working when found; they were killed on the slope near at them, one or two men at Francis' Flat and near at Francis' Flat; the others were sliding and were not attached in ships; I cannot say whether these bodies were killed at all before that fall; I saw eight or nine ships empty described at Francis' Flat; they were known off the rails; I cannot say whether they had been driven off the rope rods or the outside rails; I did not make a close inspection to find out at the time, the whole of the slope at that point had been standing down running for the whole to work them, two of them were on their sides and one on its end where I saw them; I have marked the position of the slope on the map with red systems; the day that was on it and was the same as near as McLaughlin's Flat; there were no other tracks displayed beside those I have mentioned; I saw an other ship descended that day; I saw another body down out of place after that when Douglas's body was found in No. 1 man's bedding; it was close down to where the dead body was found; I cannot say which way the timber had been driven; I did not see any other timber in No. 1 section and of place; the dose was above, not close to the dead body (marked O); I cannot tell what direction it was in which the door had been thrown; I do not

position to know where all the falls were in that area, as far as I know Danzey's body had not been moved when I first saw it. I cannot remember the position in which the body (Danzey) was lying, the head was about 20 or 30 yards from the body, the arm was a few feet from the body and the legs were between the head and the body, the head and the arm were lying towards the rear of the area (No. 1 section) from the body, the body and the head and the arm were lying in No. 1 main heading (No. 1 main level on the map). Whether a body was lying on top of a fall ship with the feet down, its head was lying in the same direction as the head of Danzey was lying, there were other ships behind him, I cannot say whether he was on the face or several ships, he could have got up on the ship if he had wanted to do so, there was a fall of stone just three or four of the stone was so low, it was on him or large quantities he was so involved with stone that at first he was confused; I am familiar with the sound of a fall of stone in the mine, when you are close to it it sounds like a rumbling of shovels, that is a very loud when you are diving timber, I heard no sound at all on the 31st of any time, it was the usual very attentive attention, it was coming in the opposite direction a fall when they are diving timber in the pillars might have caused the change in the direction of the air.

When questioned by Mr. Danzey, the wind came against the air, I did not detect any bad smell at the time I first noticed the air, it was detected by me (the bad smell) about a quarter of an hour after, I did not get the bad smell when I met the mine. I detected the smell in No. 2 right, about our heads down, towards Pencil's Pit, I knew that that smell was the other dump; it was pretty strong there, I turned back, we thought we had gone quite far enough that way, I was going with the air on the way to Pencil's Pit, the air would carry the dust and smoke, and finally, they did not get off very long, towards Pencil's Pit, I had no idea then that there was something wrong but I did not know which it was, Danzey told me that his place was very hot, or something on that order; I cannot say that he said his place was on fire, but he said it was very hot; Evans said nothing about his place; young Walker was very excited, and wanted to get out, he did not say anything more than that he wanted to get out; after that time I saw that No. 1 was on fire, but I did not know what was and that, the carbide I came to was that if No. 1 was on fire, the sooner the men were got out the better; I thought it was an explosion of gas in the dump; I did not know before the explosion that there was fire in the dump about Pencil's Pit, I do not know now that there was fire in the dump about there before the explosion, I have been in Pencil's Pit since, I am now satisfied that there was an explosion in No. 1 from fire in the dump, I do not know what Evans was concerned about when he said he was concerned, after and before told me that they had felt a change in the air the same as I did, they thought there had been a fall, they did not tell me that they had heard any noise; the suggestion that we should go and look at the mine or map was Evans', we went to Pencil's Pit to see if the air was right, if the return was not all right, the air would have come past to where we had left the men, and would very likely have been there, from the time I and Evans left the mine, and told them to wait there till we came back, and the time we returned to where we left them, I had a conversation with Evans, he only said, "I am excited", he did not say what he was excited with, there was some after-damp coming up the mine towards that time, they were on hand at Evans' quarters after I left the mine, I did not hear anything at all, except that for my time before I left the after-damp coming up the mine towards, I was standing 200 yards from it, I could have heard after-damp coming to the mine through, I had never heard of fire in the dump in the Kamela Blue before, I had never heard of it in my previous at all, I will swear that I never heard of any fire in the dump, I just noticed a man named Gallagher being burnt, that was many years ago, I was in my time that he was burnt; I do not remember the circumstances; I think I would be watching at that time, I did not know personally well that he was burnt with fire in the dump; I heard that Gallagher was burnt, I never asked what with; I do not remember that a man named Evans was burnt with fire in the dump, I do not remember anything of that at all; I do not know that a man named Wiggins was burnt with fire in the dump, the door I have spoken of was a wooden door, I saw it before the explosion, it was in those months before; I cannot remember the occasion I saw it, I have not seen the door since the explosion; I did not see the door when it was blown off at my own house before then, I did not see the door; Danzey's body or any of the clothing; his clothing was not burnt that I can say; I will not swear that his clothing was not burnt; I cannot swear that he was or was not burnt in any way; I did not make any examination; I did not make any examination of Pencil's Pit; I did not notice whether any of his clothing was burnt; I did not notice whether the leather shoes was burnt; there was no other door except that one near the shed lower, I do not know that there are any other doors or entrances in Kamela, I say they have heard were any they have had them not burnt, I saw the landscape road, the road is watered, whether the manager thinks it is required; I cannot say the number of times the road has been watered since the 1st of January, it has been watered often and sometimes the manager and it was to be watered; it may be watered on an average every fortnight, at places the road is naturally wet and at others it is dry but not very dry, and some of the road is naturally wet; I do not know anything about the watering of No. 2 section, the mine manager and the deputy would give orders for the watering of the road; I have never seen the water in any of the water; I was not paid extra for watering; I had to do that under the contract, the object of watering is to lay the dust so that it would not ignite; there is considerable danger of dust igniting if it is not watered, the system of watering in Kamela mine was water trucks, with plug holes in the bottom, the watering is prepared to see that there is not too much put in one place, I have two water tanks in my section (the shaft section), the tanks are placed about 100 feet from the mine, I do not know how many tanks are in the mine, the tanks would hold a few hundred gallons, I should think the large one would hold 200 or 300 gallons, there is no provision for the tanks to stop or to go by, they are always in the place, we get orders for them to go to, they go off the rope ends, they go into the hoist right up to the face when required, I have known that to be done, I have the tank crossed up in work place on No. 2 right, with water, No. 2 right was burning, under a little water, the water would be put down there and in an or some distant place, in several tanks in No. 2 right, I myself have had water brought in No. 2 right heading to the shaft in No. 2 right heading in tanks to see, I have known water to be taken into Richard Walker's place to see it, one of the tanks was burnt, it was burnt, there was a fire three days before the explosion, I gave orders for Walker's place to be watered; I think Mr. Nelson gave me instructions to have Walker's place watered the last time it was watered before the explosion, Nelson told me that Walker's place was watered, he did not tell me any more, at the time he told me that he did not tell me any more was a place watered water, I have of no other watering places besides Richard Walker's

(24)

that were saturated during the month before the explosion, there were no very peculiar conditions about Walker's place that constituted its being saturated, it is actually a wet place; Walker's place did not need a stream - he used to take water from it; when Nelson wanted it saturated was saturated yards distant from the fire, it was not extra, had there a hundred yards from the fire, there was just there, but it was not very dirty, it was more so than at any other place I was back of at the time, Walker's place was in No. 5 right handing, I cannot think of any place other than the travelling road that was saturated during the month before the explosion; I do not know whether Nelson got any instructions from the manager to have Walker's place saturated, Nelson was afterwards at the time, all the water that was used for watering was got from under the mine, the left hand of No. 1 main heading was not very dirty when I was there about a month before the explosion, there was actual damp at Bruce's and at Walker's that, with the exception of those two flats the other parts were a little dirty, water, to water that section, could be got either from Bruce's flat or at Walker's flat; I do not know whether any watering was done there at any time, there may have been a place or two in the travelling road where there was a little dirt, it was a little more than on the main heading, the travelling road was not at a serious distance, water is let on to them, water has been let on to No. 5, I am sure by let on that the water was let on to the road by ditches, that is the only water the travelling road gets, therefore any rise in the travelling road gets no water at all, from the main level to the telephone cable is a descending, and from there to the top of the No. 1 main level, and right up to the top of the main workings, it is ascending, I cannot explain whether any water is being made at the No. 1 main heading; there is no accumulation of dirt on the floor of the travelling road from the telephone cable up, there may be an inch or so on the floor, you find dirt on the main level, there may be a little dirt on the sides of the road, but the road is clean, that state of things would apply to the place where the dust index was found - that is, the area dust index, I do not consider myself competent to give an opinion on specific questions; I do not know whether anything was done to remove the dusty conditions, because that was not my section - when my brother was away I was in that section for perhaps an hour in the day, that was the about two days about a month ago, I have been in No. 1 several times in the last three months, that was the about one day a fortnight for an hour a day, while I was there I did not do anything to remove those dusty conditions, there is very little dirt in the shaft section, there is no considerable accumulation of dirt on the rocks in the shaft section, there is very little dirt in both sections, I have spoken to Mr. Atkinson when he has been at the mine, I was speaking to Mr. Atkinson for five minutes before the explosion, he never gave me any instructions about watering, whether did any other inspector, I have never had any directions from an inspector in water, it was partly accident that I saw Mr. Atkinson; I only passed the time of day to Mr. Atkinson, I do not know when the inspectors are coming; I cannot remember any particular portions of my section which I thought the worst part of the explosion came from, when I saw the dust house I could not know whether it was or was not damaged, I did not notice whether the house had been burnt, I did not notice whether any of the houses had been burnt, I did not notice whether any of the houses was broken, I could not say that all the houses I saw there were on No. 1 main road was damaged, it was very thick, I did not examine it at all.

Cross-examined by Mr. Webb: Walker is often brought into the mine which is burnt, and it is used as the mine, I do not know the time of day when I saw it, as well as I know that in the shaft section, when I took my brother's place I said to him several times, a No. 5 right handing up my own section, I would have no reason to be in other than the main travelling or backings road to get there, unless I wanted to go to the telephone cable, I had no business in the main road, it was a frequent occurrence for me to go to the telephone cable when I was in No. 1 section, when I had finished my work in No. 1, I might go by the main road, my knowledge of the travelling road in No. 1 is gone, I have been on the main road to the telephone perhaps twelve times in the last six months, I would travel the road for no other purpose than to see that things were kept right, while I was in No. 1 section I have steps to see that the road from the telephone cable to the main level was kept in good order, I have also taken steps when there, if I saw anything wanting to clean the road up from the telephone cable to the No. 1 level, or on the main level I saw something that wanted cleaning up, and I had it done as they pass, I knew an opening from the right of No. 1 main travelling road into gulf of 25 acres, which is known as No. 4 right, I do not remember whether there was any chimney in the locality of No. 4 right, there was no pump at No. 4, old No. 3 right is between No. 2 and the telephone cable, there is a pump at No. 3 right, the water accumulates between 2 and 3, I do not know where the water drains from, or what it can say the water level on the surface rope by 8 miles an hour, the mine and the road headings back much faster than the surface rope heading; it goes 1 and 8 miles an hour, there is a good deal more dust than when the steps go fast, I have marked a "W" where Richard Walker was working, it was at No. 3 right straight heading, from the end of the heading to the junction of the main road would be about 500 yards, we used to get the water out from Walker's place and take it along the heading, not because the place was dirty, but to save the trouble of having to go down the shaft, I do not know where the water was found, I saw the scales of dust hanging off her arm from the floor down, where he had been sitting, her arms were black, her face was burnt a little, I could see the scales of dust on her face and hair, she was found from the face and the arm, the hair was singed a little on the back of the head, her a better signs was, he had some clothes on; I do not know whether he had his coat on or not, Perrell was at his place a few yards from the face when I saw him, Perrell did not want to be burnt at all, there was no mark of injury on his body, Perrell was one of the boys at the machine room, I first saw Atkinson on the heading, Perrell was not dressed, he was not dressed for coming out, his arms were bare, I have known Mr. Rogers, the manager, for a number of years - ten years, I have known him to be a man who is very careful about the safety of the mine, he is strict in the observance of the general rules, I can say that some about Nelson and Dranger, they were careful of the safety of the miners; I only have to do simply with the getting out of the coal and keeping the mine in shape; I have noticed a hole about coal explosion, after I took the after-damp I came to the main level these men have been an explosion of the mine, that was the only case I could think of, just the only explosion I know of in these explosions, I have been troubled by the travelling road from the telephone cable in No. 5 right since the explosion, but I have not troubled by the travelling road, I have not examined either of the roads.

Re Mr. Webb's question: I have read little for my own safety, I remember the impression that a percentage of me was material to an explosion and that is why I find the opinion that there had been an explosion of fire-damp, I have not read that explosion takes place without the presence of any gas and

advised

merely from dust and the heat from a fire; I give the answer that I am now satisfied that there was no explosion in No. 1 from fire-damp, because I know of no other cause for an explosion but fire-damp; my father has a contract in writing with the Company, I cannot say whether there is a provision in that contract that my father is to undertake the watering of the mine; the tanks I have spoken of are the ordinary malt tanks, 250 and 400 gallons; I have seen four of these at one time in the shaft section; I do not know of any more than these four tanks, the water comes from a hole right in the bottom, the hole is 2 or 3 inches in diameter, it is a round hole stopped with a wooden plug; there is not any noise apparent in the mine for watering; that I know of, there is no water supply at the mine other than that in the mine; water has never been stored down from the surface for use in the mine, all the water that finds its way on to the roadway comes from one or other of the natural springs in the mine, when the tanks are not in use they are placed in the most suitable place where it is thought they will next be needed to hold water where it has accumulated, the water is collected with buckets and put into the tanks, and then they are taken away; if the water does not accumulate, the tanks are very seldom used for carrying water along the road; the primary use of the tanks is to carry water away so as to get on with the working, the water is always taken to the workmen; that runs out of a mine, or to a pump to pump it out; if it is water to do some mechanical work to get out of it, when a plug is taken out of a tank the tank takes two or three minutes to empty, the water is stopped, the plug is taken out, and we say down till it is empty, when any water is taken along the road for watering, the water is distributed when necessary; the emptying may be made to extend for about a quarter of an hour, a tank of water would go a long way; one man working a whole shift might know small distances at which tanks of water in watering twelve months ago, since then there has not been anything like that quantity used on any road, but other parts of the mine have been worked, in wet weather there is an unlimited supply of water in the mine, even in the dry season there are thousands of tanks full of water made into the mine and go out to it; work, there is no stint of water in the mine, a very small portion of this water has been used in watering the roads; the water runs between the rails, it runs also run underneath the rails and on to the side, if the water was coming out in small quantities the water would not go under the rails; 2 feet in the maximum with water and the plug is pulled right off; at the ordinary pace, with the plug pulled right out, no tank would water 30 or 40 yards; even on No. 6 night the water would not be put on the roads for the purpose of watering, but for the purpose of boiling, so far as my duties are concerned and my knowledge, when I have had charge of it, no water has been put on for works, I have never seen any but the four tanks I have mentioned in the mine; I know all these four tanks, we always use the same four tanks, since I have been in the mine I have never known anything in the mine to spray or water the sides of the tanks, the most used is 14 feet wide, the two lines of rails being 4 feet in each, there is 2 or 3 feet between the sets of rails; they have about 3 feet 6 inches on either side of the rails, I have only known the plug to be pulled right out to water the space on either side of the rails; that has only been done at very short distances where the tanks have been wanted to be emptied; when watered me to use the water to water Walker's heading at a point 100 yards from the face; when I took my brother's place I had charge of the whole of the mine and I say duty was to me that the road was right, dry, and clean, that consisted in filling the skips and picking up any water that may have fallen on anything else; but I did not do any watering, one system of heading is the collar rope.

Is the Governor: If there is any quantity of stuff inside that, it is filled and taken out, the dust is only watered, it always depends on the nature of the stuff whether it requires watering again. If the face is out of a damp mine the stuff is put down up and made out, stuff that would be dust, if it were allowed to remain there, I could not say about the ships whether they were washed or not, but they must have been, for they were further than the bottom of the coaling, there was nothing in the position of any of the bottom that led me to form any conclusion; there were no tanks lying inside them, most of the men where I have worked on the map had evidently come from the face.

Is Mr. Bruce Smith: I have never cleaned up dust from the travelling road, there is always a good stream of water in the drain 5 inches deep by 6, and 2 feet wide, and that is running all day.

Made and sworn, at the Court-house, Wellington, this }
20th day of August, A.D. 1902, before me, —

AL. FRIDGE.

CHAS. C. HERRMAN, Clerk.

[Special Rules of Mount Erebus Colliery are now put in (marked B)]

Deposited adjourned, for the purpose of further evidence, till the 21st day of August, A.D. 1902, at 10 o'clock a.m., at the Court-house, Wellington.—CHAS. C. HERRMAN, Clerk. Court-house, Wellington, 20th August, 1902.

Deposited resumed, in pursuance of adjournment, at the Court-house, Wellington, on the 21st day of August, A.D. 1902, at 10 o'clock a.m.—CHAS. C. HERRMAN, Clerk.

Examined by Under-Sheriff Smith.—John Morrison, sworn, states: I reside at Mount Erebus, I am the deputy of No. 3 right district at the Mount Erebus Colliery; I have been employed on the colliery altogether for fifteen years, and for about nine months as deputy; I have worked the plan with a blue pencil showing what portion of the colliery my district embraces; I commence duty at 5 o'clock at night, I commenced at that hour on the night of the 20th July last (Wednesday), during that night I went in and examined for the witnesses, I have no recollection of all the various places I went to; I examined all these places where the witnesses were going to work; I examined the working places for the entire morning in the morning, all shown in my district; I examined, I examined the road made in that portion of the mine; I found nothing unusual in any portion of the mine that night; I commenced on with my work during the night, and returned to the mine, which I have marked on the plan with a cross (X), about ten minutes to 5; that is on the main travelling road near the entrance; I met McIlwain, a deputy, there, he is the night deputy for the shaft district, when I met McIlwain I started to give out the tickets to the men going to work, those were to the men in the front shift in my own and McIlwain's district; I myself did not give out all the tickets, McIlwain started to write out the report, every man

I handed the token to my father I said "All right" no; McMarney called out "All right" too the men, when I called out - "All right" in the room, I meant that their working places were all right, I had no intention to stop any of them from going into my district that morning, everything was all correct at the various workshoppings in my district, neither William nor Henry Gibson worked in my district; they were working in McMarney's district, if either William or Henry Gibson worked in that morning he would pass the token I have mentioned and would get the token; I cannot remember whether either of the Miners did go in that morning, when passing the men on the front shaft, McMarney said I will be the token about five or seven minutes after, I think there were three men who did not go into my district that morning, their tokens were left hanging on a board in the token; I cannot say what three men they were; I could not say whether any of McMarney's men did not go in, after leaving the token I saw the under-manager, Mr. Nelson, I gave him a written report; the report was in a book; the book is known as the "Report book"; I produce that book (Page got in and showed Exhibit Q); Mr. Nelson took the duplicate report from the book, after I handed the reports to Mr. Nelson the whole of my duty for that day was finished; I also made another report to Mr. Nelson, and produce a (Page got in and showed Exhibit R); I took the report to work made at 5 o'clock in the afternoon; I left the colliery after making the report, and went home. I went to bed, between 1 and 2 in the afternoon; I was awakened by some noise; I asked my family what it was; Mr. McMarney, who resides with me, called out that he thought it was a boiler had burst; McMarney went home with me in the morning down the colliery; when McMarney said that, I got and put on my clothes; McMarney had his gun; I said there might be something wrong with the mouth of the tunnel, and I would take a safety lamp in my hand; I did so; I ran down to the tunnel mouth with McMarney; when I got to the tunnel mouth everything was marked up and you would have thought the tunnel was closed up altogether; I could see that a very serious accident had occurred; I lighted my safety lamp and went up to the mouth of the tunnel; McMarney was with me; McMarney and I both went in to the mouth of the tunnel with the one safety lamp; McMarney and we would never get it with that lamp, we had went down to the engine's shop and got a big back lamp; I would not be returned in a minute or two, so they went in to the main tunnel, and when about 50 yards in we met James Farrell, he was either in his working coat or bare feet, he was running; I asked him if he saw anyone on the road, and he said, "There is no sound at all down here"; I said, "Are you going straight on?"; he said he thought he had done so, he then passed on; McMarney then went on, and went through the tunnel; No 8 right; I mark that place now on the plan; No 2; I found a big hole there in the tunnel; No 8 right; at the back of the last Adina Street, now, and Charles Rogers were standing; I saw them; I did not go over that hill; McMarney and he would go back and get the safety lamp, and he left me; Charles Rogers then went with me; he came over the hill to me; we went in the main tunnel; we went right to the shaft; No 8 right, where the twisting shaft is; I have marked that point on the plan; No 3; before we got to the shaft we found three bodies, at the point marked on the plan; No 4; the bodies were those of Jack Richards, Edward Gallagher, and Minnie (I do not know Minnie's Christian name); I think it was the ridge of the two shafts; I asked Gallagher and Gallagher to take a written statement; I asked 16 or 18 yards along I saw a Tom Morris and William Barry; I have marked the place where we found the three shafts; No 5; there they were still at the time after that Rogers and I went right on to No 8 right; I then saw a man named Minnie go up at the shaft, wearing a pair of trousers; he appeared to have lost his head; next to Minnie there was Billy Lane and his son, Walter Olsen, and others whose names I do not know; we saw them all up; I have marked on the plan where we found these men; No 6; Minnie went up at the shaft right with Billy, and Frank, Rogers, and I then went into No 8 right; there were a lot of men and bodies were lying on No 8 right; these shaft were also very dangerous; these men and bodies were lying somewhere about 200 yards from the shaft; we saw them all up; I have marked on the plan where the men were; No 3; I am not well acquainted with this district, after we had got the men all up we went along to Daniel heading; Richard Walker was lying further to than the other men—somewhere about James heading; I think that Frank then told me that Davey Byrne had all the men the other way; I returned with where to the shaft; there was one another there then, there were others there after; we returned to the shaft to clear the road, so as to get the men out in a day; while we were clearing the road Andrew Patterson called to me to come, then there were men lying in No 6 left; I went away with him into No 6 left; I found two men at the point marked on the plan; No 6; one of them was my son—he is still alive—and the other was Jack Ryan—he is dead; he was alive when I found him; after we took my son and Ryan away; Eray Allen then joined me, Patterson having been one of the three who took my son and Ryan away; Allen and I then went up to the pillars on the outside of the long wall; we did not find any bodies there, we found nothing at all; we returned there, and went right through into the main tunnel; about 10 yards in the main tunnel I saw a man; he was short, and as tall; his name is Tom Ryan, the place where I saw him I have marked on the plan; No 6; we got out him up and then Ryan went down and went on to the men that there was another up there; he was sent away in the direction of the shaft in a day; I cannot say when he was sent; 70 yards from right we found two other men—one was Charles Gallagher, the other I do not know; I have marked the place; No 10; they were both dead; Allen and I went on; we went on to a bit about 20 yards from the tunnel right marked No 10; we then returned by the main tunnel to No 8 right and started to help to carry the men out, the first man I helped to carry out was alive; he was Alexander White; I helped carry him to old No 6; Patterson was there with where, and Patterson and they could not find William Clinton; and I went back with Patterson to look for him to the shaft; we headed White's over to where; I went into the main heading with Patterson; we went through a cut-through; we found Charles had gone out another way; we started then to carry out Billy Lane who was dead; I started to carry him out by the twisting shaft right outside; it was then between 8 and 9 o'clock; I think I went in again, about half an hour after it was 10; I then went No 1; seven men besides me went into No 1; we went in the twisting shaft; we went to the main heading to the main (upstream), and we found three bodies at the point marked on the plan; No 12; I could not say whose bodies they were; I think one was Farrell; we then went to the fourth right; we went in through the cut-through into the back heading; we then went right along the twisting road, and through a cut-through at the fifth right; I think there was a dead horse about the spot marked on the plan; No 1; from there we went right up along No 1; I am not about 150 yards from the fifth right; about then we came on the body of Frank the boy; I did not carry him; it was his body, but it turned out to be her; it is about 60 yards from No 3 right, and not 120 as I said just now; I then

marked

marked the place where Duggan's body was X 12. Duggan's body was lying on the back; his temple was hanging out; the head was off the body. I could not positively say where his head was; the head was beyond the body rails, everything was beyond the body rails. They were gathering like the body up; we did not find any other bodies with Duggan's; our party went on then right up into No. 59 heading, we found nothing there; we then went into No. 12 head, James and I were working in No. 49 heading, at 709 head we found John Patrick, that is the first head east to the back heading, I have marked the spot where we found Patrick X 11, he was dead, and was lying on his face about 3 yards from the back; his body was under the board of the floor, we left his body and went on, we went into head 59, we there found Tim Toot lying out of the head in the heading, his body was not mutilated, I have marked the place where his body was found X 15; we went down the board opposite side 59, and from there through a hole through into 87 head, there we found the bodies of John and Thomas, I have marked the spot where their bodies were found X 36, John Toot, James, was one of the party, the two bodies were lying about 7 or 8 yards from the face in front of a drift ship. They were lying close together, they had come out from the face and were lying in the roadway, their bodies were not mutilated nor burnt, from 87 head we went through a hole through and on board to head 65, we there found the body of James and that of his son, I have marked the spot X 17, they were lying about 16 yards from the face, both their bodies were a little burnt, from 65 we went into head 25, we there found the bodies of Andrew and James, I have marked that spot X 18, 65 and 25 are both pillars, they were both lying on in front of a ship that was standing out about 15 yards from the face; these bodies were not mutilated or branded about at all nor burnt, from there we went, we left James' head, at No. 81 and 81, we found Kim Maloney below heading, No. 81, that was in 61's gannet head, at the point marked on the map X 19, the body was 40 or 50 yards from the face, he was a whaler, his bone and ships were close by, the bone was dead, the 2nd body was lying in the heading, with it, it was not burnt, we did not go into it; we returned to 42 1/2 gannet head in the fourth left, back heading to South's gannet head, we there found Russell (George Russell), Hunt, Don, Hawlett, and James went together at the point marked X 39, Russell's body was at the point marked X 21, his two bodies were all right, not mutilated or burnt, we went from there to No. 81 pillar of South's gannet head, we there found the bodies of Bob and Ben, they were at the point marked X 22; there was nothing wrong with their bodies, the bodies were 85 or 90 yards from the face, so then went up into No. 79 heading, we did not find anything there; from there we went down South's gannet head to the fourth left eye wall, and along that road in Prince Carl, the first one we found at Mark Elak was Kemila Skifford, then Patrick McCann, Jack Murphy, Gibson, Brown, and Sherry, I think Youngman was got three feet, but I am not certain; they were all dead, Skifford was burned a little, but none of the other bodies were burned, Skifford's body was a little away from the other bodies his working place, I think he had been hauled there, his bone was found also attached to the ship; Skifford was a whaler, 3 or 4 yards off this side of the face, his bone was found also there, his body was not burnt nor mutilated at all, we then left that place (the whole party of 11) and went to head 74, that is where the two James had been working; we found no one there, we then went to head 72; we found no body there, Jim Elak worked there, that is the same head whose body we had found on South's gannet head, we then went straight down to 74 through the cut through and then on to 65 head, we had seen all the men who had been working in 65 to 68 meters in the shaft district so knew that they were out, in 68, Duggan and we had been working, they are now dead, in 68, Williams and Ferguson had been working, they are both alive, in 67, Cook, brothers had been working, they are both alive, in 66, Ferguson and one had been working, they are alive, in 65, Peter and Brown had been working, they are both alive, we did not go into any of these heads; we went to 64, where James and Bill had been working; we found no one there, Brown and Gill are dead, we went into the shaft district, they are dead, from there we went right out to Powell's heading through to 60, when we had got that far we found we had got too far, I think he was too far; then we had gone too far for our own safety, we could hardly walk, so then went into 70 head through the cut through and up through on to the heading opposite all Power's flat, and from there on to Prince Carl, up to that point we had seen any further bodies; from there we went up the second left and on to the fourth left and straight out the fourth left travelling small from there we went on to the 5th I could not find any, we then went into the 5th right, we got into a line down there; we found nothing there, we then went right up to the 5th right to the top; then we came back a corner to the daylight heading, it was between 2 and 3 o'clock when we came out; I then went home.

Continued by Mr. Campbell: I have seen the place today a time before coming over Court today - we just like that, I was at that night in my own house, I got it last night, Mr. Rogers gave it to me, it was in the early, and I asked to take it, Mr. Rogers was not with me at my house looking over the place, George Russell had a man named Joseph Adams was there, also; everything I have said is what I know myself, I could take you into the place and show you every corner, if you be thirty or forty minutes after going to the first time that I came across James' head, I mentioned some of the waste workings on the 30th and 31st; I mentioned 151 acrossed the 20 acrossed the other side, I mentioned some of the waste workings on the 30th and 31st; I mentioned the 15 waste made, the waste was recovered before 31 in the morning, I could give you any idea how long I spent in the examination of the waste workings; the 15 waste was recovered off, it had all fallen, I do not know whether all of it had fallen or, I know that some part of it had fallen; I say now that it had all fallen or you could get into that waste from the side near No. 1 left, the two places I have mentioned are the only two places you could get into it, but of course both those places were found all; they were found off each other, I did not get into that waste by either of those ways that night, I went into the place with the exception of going to the waste I did not go into any of the waste that night or never do go in, I went to the face to go in, I just go and see that the workings are all right and that the roof is all right; it is not my duty to go right into the center of the waste, I saw no gas; I do not know whether gas would accumulate round those waste workings when I never got, I notice the anything to see whether gas had accumulated in that waste, I went into that waste in my life, as to the 30 waste I went to the daylight, where there are pipes, and I examined there,

there; I went there to see that the paper were all in order; I standardized the place right up; that was done before 3 in the morning; that is what I call the examination of that waste; that is all I want to show about the examination of the waste; I did not go into the waste to examine it; I went into the furnace on the fourth night; it was seven days before I saw it; I have been beyond that since but I was not in the City about seven days before I had been beyond that since to see it had fallen, the men had been drawn out of that place seven days before the 31st and the timber was shown; I went in the night after to see it and the roof had fallen right; the fall was about two feet and a half thick; seven days before the 31st there was a big opening above that; I did not go in on the top of the fall at all; I saw some blackfacing 4 or 5 yards before I got to the fall; then was seven days before the 31st; I did not put my light out; I never went inside the three other times up to the top of the chimney; I have been inside the four times; when I made that examination of that waste I made a report in writing; I did not make a report in writing of the examination of the waste seven days before the 31st; I made no report; I made no report of the black-damp; I was not supposed to go inside the place; but I did go in to see how the roof fell; my object did not at any time take me beyond any lower of a waste; Mr. Nathan took me round once and the danger took me round once; when I got the job Mr. Rogers told me that my first duty was to allow the furnace work to fall behind and if we were not to do it he would send someone for us to work on, also that if I found any gas or anything I was to report to him at once; there were no other instructions; I do not remember all that Mr. Rogers said to me; wherever there has been an inlet into the waste if there is not a stopping post as there is a lower post in, that is first (the first or stopping whether the waste has fallen or not, I know give what I see in; I have studied works on gas in old times; I have read every work, I know all the contents of the following rule (No. 10):—That the deputy will at least once in every week, examine, as far as is practicable, the state of the waste workings and make his report and sign a true report of the state thereof in a book kept at the office for that purpose; the book provided contains the reports made as required by Rule 10 of the waste and working places in No. 1 section; there is no book kept at the office as far as I know, for a waste report under Rule 10; I made the report in the book provided on the 14th concerning the waste workings (it is marked Exhibit F); there is no report about the waste workings on that but it means that my (deleted F); the report is made every month when I made my report on the 14th I had a signal lamp and the safety lamp; Halfway had not a safety lamp; on the 16th I went through the doors of the waste workings.

Made and sworn at the Court-house, Wellingburg, this

21st day of August, A.D. 1892, before me,

CHAS. C. REYNOLDS, Coroner.

JOHN MORRISON

Impegned, for further evidence, till the 21st day of August, A.D. 1892, at the Court-house, Wellingburg, at 10 o'clock A.M.—CHAS. C. REYNOLDS, Coroner. Court-house, Wellingburg, 21st August, 1892

Impegned, in presence of adjournment, at the Court-house, Wellingburg, on the 21st day of August, A.D. 1892, at 10 o'clock A.M.—CHAS. C. REYNOLDS, Coroner.

Cross examined by Mr. Esquire—John Morrison, replied, states: There was Rule No. 1, I have heard you read part of that rule; I have never reported the finding of carbon or inflammable gas in Rendell mine; with the exception of the black-damp that I discovered seven days before the disaster I never discovered black-damp at any other time; the safest way to detect inflammable gas is with a safety-lamp—that is the proper way; I have never found any inflammable gas in the mine; I did not look for inflammable gas when I made the inspection on the 14th July; if you go in there with a naked light, any man that knows his business will find it; we examined with a naked light; with such an inspection as we give it we would have discovered gas before that time; it is possible for gas to be in some places in the roof of the mine and not be detected with a naked lamp except in the usual way (in this mine); I always carry a naked light on my head; I did so on the 14th; to my knowledge I did not take that naked light from my head at all; I could not say exactly; it is not possible for inflammable gas to be in an open and remote place of a heading and not to be detected with a naked light; if a person were in the mine; I cannot say how far the inflammable gas would have to be from a naked light before the gas would be detected; I cannot give you any measurement because I never tried it; if a man goes in with a naked light, he has the gas quick enough if it is there; I cannot give you any idea how far a naked light would have to be from inflammable gas before it would ignite; the only way that you would ignite inflammable gas with a naked light would be in a way that you could not report in it if there was sufficient quantity suspended for inflammable gas with a naked light in practically working; the places we inspected on the 14th were two headings where the fresh air came straight in from the travelling road; we inspected just as we were on that date; we did not inspect any of the working places on that date; the two headings I have mentioned are not the only places we inspected on the 14th; we inspected another watercourse, between No. 1 main tunnel and the straight; we examined the return air way from the back heading to the shaft; we came back the other heading, and went out No. 3 way, and went right up to old No. 2; we went into No. 3 (old); I had finished with the right section, when we went as we went up the first shaft, and took a heading back, and we went right up to the top of the heading and went out the daylight; then went right back to the second right heading; we went down the second back heading to the travelling road, and then Morrison went to the water-level; and I went the return air way to the shaft; then we went out to old No. 2; as we were going along we were examining all the places; we examined all old No. 2 right round to the shaft; then we came back the back heading of the main tunnel to the all pump, and then we went out to old No. 1, and examined that to the daylight heading at Mr. Rogers; that is the last; I could not say roughly how long Morrison was away from me at any one during the inspection on the 14th; I cannot say how long he was away from me; I do not think he was away an hour at a stretch; he might have been away half an hour at a time; he was away from me on every other day; when I signed the report on the 14th, there were two places I had not travelled, one was the water-level between No. 1 level and the main tunnel; I am not certain which of the levels I examined;

[illegible]

Report adjourned till the 21th day of August, a.d. 1892, at 11 o'clock a.m., at the Court-house, Wollongong, for further evidence.—CHAS. C. BROWN, Deput. Court-house, Wollongong, 21st August, 1892.

Report received by the Bureau of Adjustment, at the Court house, Wolfington, on the 15th day of August, A. D. 1903, at 11 o'clock a.m.—Chas. C. Russell, Deceased.

[illegible]

"William Nelson was under manager at Moon's Kitchen. I know that fire-damp was put out a light. I know that it was black-damp that I saw a week before the disaster and not fire-damp, because black-damp turns the light blue every and fire-damp turns the light on the lamp and leaves a blue cap on the top of it. Fire-damp is always in a hole without a safety lamp. I was in the mine with a safety lamp, never drove before the disaster. I did not say it was with anything else. The black-damp did not put my light out and leave a black wedge, when I found the trace of it which days before the disaster, anywhere that had any presence at all ran into black-damp without going into it. Even it and went back, if you go into plenty of it black-damp will put the light out. I just went to the edge, I took my safety lamp with me on the 21st when I went to the mine in the afternoon. I did not fear that there was any gas in there. I believed that the men were out of the mine in the morning. I have heard of a man named G. H. being injured in the mine. I suppose he got burned with gas. I was not there. I was working there at the time, the reason I did not go to say any words was because I went on to look when the members of my light and family. I went to the shaft station where they were working, the waste stoppings were into the telephone road in the 1st section, the stoppings were lying from just past the old furnace leading to the cut through just outside the shaft into the fourth right. None of stoppings were in there ordinary places after the disaster. I cannot tell you where the stoppings of the 15-acre waste were lying simply because I never went to see. I am not certain where the stoppings of the 15-acre waste were, I am only speaking of the stoppings between the main heading and the telephone road.

When questioned by Mr. Butler: The red marks on the plan do not indicate the route of my daily work. I remember the roads and facts, but from 2 black tell I, my little brother that was down I do not go along. Some of the roads may be examined from 10 words. I have heard you read part of Rule 6 of the second rule. I have read that rule. I do not go into the face of every working place twice, but I am in the place more than once, the cut through in the working place are generally heading roads. I believe the cut through in No. 1 section is in every mine the place where the men run through, on the 21st day I got through, I said the old gods so far as was possible, as far as was safe to go, that is what I mean by practically. Some places are dangerous in those places and that is what stopped me, in some places, in other places the gas is like a stone wall and you could not go in. I did not examine the 15-acre gas on the 10th July. I did not examine the fourth right pillars on the 10th. I remember, in the mine, the fourth right pillar shaft, I was only once in the front of the 15-acre gas for my own satisfaction since the men were not there, that was about seven or nine days before the 21st, it had full light. I went right up to the full before I saw the black-damp, there were very slight traces of black-damp. I believe the pillars in the fourth right were working pillars at the time I made my inspection on the 10th, my brother would not let me know whether they were working or not. I have no record of the place that was working. I do not have a record, because by me of them. I go beyond the furnace when I am making my examination of work stoppings, I have no idea of the distance to go. If the timber is down, I remember, in the fourth right pillar area was the only place I knew that had not fallen, the men in that space that had not fallen was about one chain square, when I was in there the roof was perfectly good, the waste workings which I did not or could not travel were not ventilated when no one was working there, these workings were closed either by stoppings or stoppings. They were not all sealed off, some of the places were laid up and some were finished, the means of which I was deeply was not a dirty section it was rather unclean to be doing, the fourth left was the only part of it I think, this was at all dry. I would regard the fourth left as dirty, the main heading road was almost unclean to be doing. I think my shoes would not be any dirt there, there would be some dirt on it, there was no great accumulation of dirt on the road, I could not say whether the dirt was dangerous. I can give no idea of the amount of dirt there was there; in general the place was always inclined to be dirty, with regard to the fourth left. I think I am able to say that it was a second every night. Paul Devereux did the watering, the roads were all bed with the watering is done with a truck with a hole in the bottom. I cannot say whether the watering was done for the purpose of getting rid of the water or for watering, but it was done regularly, that is all I know; after the watering, the men had a shower to be cleaned off. If that part of the road was never washed in time, the watering was done nearly every night. They had to drive that water to keep the place dry and they put it on the road, I could not say whether a great deal of our coming out of the fourth right pillars would create a great cloud of dirt, or not. I went into the waste the night after the men was withdrawn and then I saw it had taken light. I went up to the burner and looked at it, it was then I saw the slight trace of black-damp, it was not the light of the black-damp that I did not go into the waste but to general means would go in there. I have never seen any accumulation of black-damp in Moon's mine; what I would call an accumulation is where one could not go. I have had previous experience of gas in the old country, I have never had any experience of it here because I have never found any. The dirt about sixty yards on the other side of the second right heading had been driven down, there are two waste dumps on the second left, there was a big pile on the top of those two waste dumps and we did not see them, there is a door on the cut through opposite the fourth left black-damp, that door has been driven to the No. 1 section, there is another door on the fourth right, that door has been driven to the No. 1 section, the stoppings were down in the same direction in the previous door. I spoke of that in the right, there was another door on the main No. 1 level, the driving road inside the left right, that door also was driven, but the headings alongside of the door were driven back into the shaft rule, there are two waste dumps on the fourth right and fourth left, one was driven 20 or 30 yards on the surface, the other was 4 or 5 yards below, I cannot give you any data on what I noticed the position of the door, I could not say whether any of the men in the telephone tunnel were burnt, I do not know the position of those bodies either.

When questioned by Mr. T. Ash: The two C's on the plan, opposite No. 4 right, are the two furnace doors. I was speaking about, they were laid down in No. 1 section heading road, one was on the rule side of No. 4 right and the other was at 2 yards on the other side of No. 4 right. I mark with blue pencil colors of No. 5 right, the direction that there was blowing, I mark with a blue arrow the furnace door was blown, which is opposite No. 5 right. The stoppings of the last door were laid down like a bow-tie in the middle of the tunnel. I noticed some days after No. 4 right in the main heading road, I saw fire, they were felt from No. 5 right to the end of the heading is a rise, the steps would come down to the point where I saw them, the steps came from beds 17, 18, 19, 20, and 21, the bottom mine on the step;

three

those of the boats I have mentioned were to the left of the main heading, and the other, Morris and son, was to the right of the midlength off the main heading, the five ships were in between the fifth right and fourth left; I think all the ships were all about the same, they were separated, and the first ship was lying; the ship was turned to the left coming from the tunnel; I saw a dark boat lying on the opposite side to the ship, on the side towards the fifth right, the last two ships were separated from the other three, and seemed to be located back from the other three; I saw four ships about 25 yards out past the fourth right, about on the telephone cable side towards the tunnel mouth, there was a ship on the first ship fastened to the rope, the second ship was standing right on the end with the wheel facing out towards the mouth of the tunnel, the other two ships were knuckled in back on the other two, these ships were full ships, the four of them, I noticed one stick to the mouth of the third left; there used to be a stick there that was found on the night side 5 or 6 yards, I noticed something about the end on the ships on the north side of No. 4, I noticed that the end on the top of them had been knuckled off towards the tunnel; I have worked on the coal in a store at Kumbia, off and on I have so worked for five or six years; I worked in different parts of the pit partly with all over the mine, I first began to work as a miner at Kumbia, another on the coal or otherwise, I used to do contract work on the mine also, such as laying out the roads, and putting the roof and so on, during the whole fifteen years I have worked there is no other boss on the coal or doing contract work as I become drifter; I worked with a safety lamp in the old country, where I have had experience of gas; I worked the use of the lamp (drifter) in how ever I saw Kumbia, also working there to the right and left of the mine No. 1 heading was the highest part of mine, Donaldson was working in level 30, one of the highest parts, the drag was in the highest part, before the explosion the battery was carried up to all these (logs), that helped to keep the current going, if some little ones have down that stops the air in vent, after the explosion I examined the battery in the part where Donaldson had been working, and it was standing as right as it had been before the blast; I did not find the battery down to the right of the main heading, the battery was down in 33 and 34, where Morris and son, and Powell respectively had been working, the battery in 33 and 34 was knuckled away; I noticed that the batteries were started on the right of the disaster, if there is gas in the mine, and the battery is down that would tend to reflect it in the highest part of the mine; when the explosion I have examined for ship in 31, 33, 34, and 35 with an ordinary safety lamp, I am pretty exactly the date; I have been in every dry mine, nearly; I think it was in the Monday following Mr. Atkinson was with me, I found no gas on any of the dates I have been to since the explosion, I have examined those places three or four times since the beginning of August, the last time I was there with Mr. Atkinson, I have not found gas at any time since the disaster; I have been to No. 4 night when the gas is there the date of the disaster (the three gassy), I have been right up to the gas and got it, the roof has fallen and come out 3 or 4 yards past the pillar, the space between the left hand side of the roof and the right hand side of the travelling road is still solid, it is about 23 yards thick, it is about 25 yards from the edge of the heading road to the edge of the gas; at the entry it is 4 yards, but higher up it was wider, the roof is somewhere about 5 feet, it is a kind of tunnel from the edge of the heading road to the gas; I have tested for gas (the three) in that tunnel at the edge of the gas since the explosion three or four times, I tested with an ordinary safety lamp; I have seen no signs of gas since the disaster, Frank Deagry would be in charge of No. 1 section in the distance before the disaster; Nelson would be wherever he was wanted, he had charge of the whole underground mine and had no particular district, William Nelson was the first to go round with me to show me what to do, Nelson was right round about with me, through the whole of No. 1 section; he showed me as we went how to proceed, examined, all the different roads to go, and so on, that was before I started the work as drifter; Deagry the next round and examined the plans and I along with him before ever I started, he examined the plans and showed me the way that Deagry did not do more than Nelson to show me what to do; when I went round with Nelson it was in the daytime and we had naked light, Deagry carried a safety lamp at night, I saw the way that Deagry did the work, I took Deagry's place as night drifter, Nelson and I went over the main roads and examined all the water in connection with the main roads; three or four years of time were working in the place which is now the 33 area gas; when I first began at night drifter, there was work on working time for an or more men to be after I started, I made an examination of those working places; I went to work with a safety lamp examined in the 33 area and the water, that would be in the morning before the men came to work, the water would be done by that working place then; there would be a new taken off the pillar, and the solid road to your face, and the other side would be water; I went on examining these pillars till the time the men were withdrawn; I never found flooding at any place during that period in any of those places; I have found a little gas in the main shaft, the explosion, Mr. Atkinson and I were in 33 and 34 since the disaster and we found a little fire-damp, I could not exactly say on what date that was; I did not exactly find it; I lost my light with it, that was a safety lamp, I got on a mine and pushed the light up, and it went out.

Made and sworn at, the Court-house Wollongong
the 25th day of August, 1903, before me,
CHAS. C. RUSSELL, Coroner.

JOHN MORRISON.

Interrogatory adjourned, for the purpose of further evidence, till the 25th day of August, 1903, at 10 o'clock, in the Court-house, Wollongong—CHAS. C. RUSSELL, Coroner. Court-house, Wollongong, 25th August, 1903.

Interrogatory resumed, in presence of adjournment, at the Court-house, Wollongong, on the 25th day of August, 1903, at 10 o'clock, a.m.—CHAS. C. RUSSELL, Coroner.

Cross-examined by Mr. Wade—John Morrison, recalled, states: When I lost my light we came straight out of the heading, which was No. 33; I could not give you the date of that, Mr. Atkinson was with me; I have never been there since; Nos. 33 and 34 are top headings at the top of Giff's pit (the last).

board, the headfire in those buildings was all knocked down, the light went out 3 or 4 yards from the working face, I have not found the dump in any place in the premises the explosion, I had not been in Nos. 3 or 4 since the explosion until I went with Mr. Atkinson, I think, with the exception of the pump at No. 3 right and No. 4 right, the whole of the western side of the 35 acre plot was a solid pillar of coal, I think there were less of these openings on the north side, there were one or two openings on the east side, and on the south side there are 1-2 or on openings, all these openings were either closed off or stopped, when I was examining the waste I went right along the rope road, and where there was an opening into the water, I would go into the opening and examine it, that was my usual course of examining the wastes. I looked at the stoppings to see if the top was off them, or anything wrong with them; I used also to examine the front of the stoppings with a lamp, that was to see if there was any gas, I never found anything; I never found any indication of the dump at any of the stoppings, Frank Dugger put the fence up at No. 4 right after the men had been with water, I took no notice of the way, when I was in the side of the last part of the pillars that was taken out, after the fence was put up, no water was allowed in the mine as I know; I know the rule which says that a workman shall not go inside a frame without permission, that is on rules 15 and 22 of the special rules, there is a narrow door between the two headings at No. 4 right, if an air gas were to come out of No. 4 right it would go into the back heading of No. 3, and these men say that it came to the air crossing near the telephone cabin, and out some of the roads by the rope shaft; that is the ordinary circulation of air, as far as I know, there was no work being done in that back heading on the first July, I know the part of rule 12 of the special rules you saw and in no way respect to the tacking of the miners, the cars on between the two headings of No. 4 right is means to keep the air from the back heading into the front, up to the strength of the miners, I have had previous experience of breaking down dump: that was when I was a boy in Kentucky, I was always told that whenever the light went out to mine, break down does not explode like fire dump, it reflects the light and your breathing if you go into enough of it, whenever the light goes out I do not come in there any time, the book now shows to me in the book in which I made the report of my night examinations (Book put in and marked Exhibit 41), a large part of the book is printed, and that is always the kind of book I have been accustomed to use, Mr. Rogers and the others used the book; we got them from the book in the morning, I look at a page on the 15th July, it shows the records 2 to 10, it is the men who put them there, I look at the page by the name on the 31st, I put on my clothes, and in Mr. Manney was going out of the door I said, "For fear that there is something wrong with the town's mouth, I will take my safety lamp"; Mr. Manney said, "Yes, bring it"; I think that is what he really, when we got to the town's mouth the air was rattling, and Mr. Manney and he would go and get a fire lamp, I do not know of any examination I had with Mr. Manney about the lamp except what I was stated in Court, when I had finished my inspection I would see Mr. Nelson at the mine outside the headfire; we got them from the book in the morning, I would see every morning, and Mr. Rogers nearly every morning, anything I found wrong in No. 3 or 4 I would report to Nelson or Rogers, who in part of my duty to report others to the master or the manager, the miners were not allowed to go past the cabin before I came back from my inspection, if I found anything wrong with the roof of a working place I never allowed any men to go and work there before it was made secure, if they were anything wrong with any of the places I would send the men to put it right before the miners went in, that was a special gang of men willing on me to do that, those men would stand with me, and in any case I thought necessary I would send them on to do what was required, if breathing had to be done during the night I would do myself, I never heard of the being necessary to have a certificate for a deputy's work, I have been under Mr. Rogers for about thirteen years, the four signs found on the outside side of No. 4 right sheet appeared to have been touching on the rope at the time of the disaster; the sign is still on the first sign; Stafford's name was on the No. 4 left rope road and just above of the cut-through leading into Stafford's garage door; Stafford was found on Palace St. Stafford's work would not take him to the spot where his body was found, it would be the other way, the last sign would come down Stafford's garage hood and on to the fourth left rope road, then around the curve on to the second left, and would come out at the telephone cabin, Stafford's name was found in the shop.

Heard and sworn, at the Court-house, Williamsburg,
the 26th day of August, 1902, before me, }
JOHN HOBBS, Justice.

CHAS. C. BOWEN, Counsel.

Examined by Reeler expert Smith. — John Smith, Reeler, states: I am a legally qualified medical practitioner, residing and practicing at Mechanics street, Sydney. I am a Member of the Legislative Council, I am an M.D. of the University of Edinburgh, and a member of the Royal College of Surgeons, Edinburgh. In 1894, I have been practicing for thirteen years in the City of Sydney. I attended the Mount Kosciuszko in company with Dr. Patten. I remained at the colliery during Friday morning, Friday night and Sunday morning, during that time I inspected water bodies which had been removed from the Mount Kosciuszko mine. I have since prepared a joint report with Dr. Patten on the matter. That report is signed by Dr. Patten and myself, I consider that report, that report is the whole of the evidence I can give on the matter, that report is true [Report here read by witness, and handed in and marked B].

Cross examined by Mr. State Smith. — I am not prepared to speak separately with regard to the three bodies of the two Miners and Nelson. I have no personal knowledge beyond what is stated in the report I have just read. I cannot clearly say of the signs or stoppages with regard to the bodies more than I have done in the report, death from carbon monoxide gas is a well-known result from the incomplete combustion of carbon, and generally occurs where there has been a flame, an explosion or a fire, if there be a flame with it, in the most common cases, there is a good deal of soot and carbon deposited during the last twenty years in connection with mining operations. Dr. Williams' report is the principal evidence, that is a report which is based upon professionally as the most authoritative source on the subject, I know of no other studies we collect evidence by W. N. and J. D. Atkinson, we have just mentioned the present state of opinion of other things in the report, I want to tell you that more than I can. Dr. Patten is a full deputy of the symptoms of sleep-dumping with which carbon monoxide is connected, I say that from my experience and reading the part of the report I refer to as follows:—Speaking of

Cross-examined by Mr. Wade. I do not agree with Dr. Mack as to these being no such thing as spontaneous combustion; I have said that combustion can take place spontaneously, and I believe that it can; I have read of it happening in real cases on board ship; I have heard of fires that have not been accounted for in real cases; I have read of one in the report of the Royal Commission on the cause of the dangers in ships carrying coal as follows: "I do not actually observe corras from the sea, and undergoes a process of slow combustion, as this process goes on heat is developed and the temperature of the coal tends to rise, the activity with which oxygen is absorbed increases as the temperature rises"; I agree with that; I believe it to be correct; I do not know what the igniting point of coal is spontaneously. I know there can be very great heat without any flame in a coal-fire, (interior heat without flame would not produce the same effect as a flame, if a boiler were put into heat of 200 or 400 degrees without a flame it probably would turn and shatter up; if combustion in the presence of carbonaceous matter, such as against the outer ship, it would tend to separate the outer skin from the inner, the separation of the skin was not the only evidence of burning; there was also the steaming of the boiler, the boiler had actually burst, and I am inclined to think that it was caused by flame, because if the heat had been an intense one to cause the heat to burn otherwise I would have expected very much more destruction of the body; I place more reliance on the condition of the hull than the skin to prove a flame; if a flame passed very rapidly over a body I would only expect the exposed parts to be ignited; if there was any inflammable material in the working place of a ship where there was no heat I would expect to find it burnt also, that is if it was heated there; I should say that a man would go some distance after being burnt as the two small bodies were burnt, it must have been either a hot flame to cause the condition of the skin I saw; I should say that it was a very much hotter flame than an ordinary gas stove, I know that intense heat will cause a discoloration of the coal, I think that the length of time the heat is applied has to do a good deal with this effect; I know that the flame of an explosion travels at an extremely fast pace, I do not know that the flame at it passes over the coal slowly, I have had no experience in the matter, I saw one kind of a body, I cannot say whether it was burnt or not, it was considerably scorched; I have no recollection of seeing any burning on that hull, I saw a body away from a head, that was not in contact with the head, I have no recollection of seeing signs of burning about that body, when I referred to the air or night before that were burnt in my report I did not include that body, that body comes under the heading of combustion, under ordinary circumstances the skin has no natural resistance to heat up; it is the force that causes it to burst; heat or flame would cause it to melt, the innermost skin appeared to be blackened on both sides where we saw them; I could not form an opinion whether the skin had been blackened by flame or by heat from the condition of the skin alone; the skin and evidence of flame was the last and in some cases the clothing; there may have been eight men out of the shipwreck upon whom there was evidence of burning; in my opinion the two small bodies had been burned by flame.

To Mr. Bowen-Smith. Apart from the notion of cross-combustion I have no doubt that some of the bodies I saw had been exposed to actual flame; in fact that three men, say, six bodies without any evidence of flame does not influence me in that opinion; I believe that it is the size of the body put by Mr. Wade, that if the temperature were high enough the smaller would burn into flame, with reference to the head I am inclined to tell by what force it had been forced from the body, the body was divided, but seemed to be unaltered, assuming that there was no flame to touch the skin, but air would not cause the skin to curl up which the heat was very great.

To Mr. Lyggett. The condition of the bodies that I saw was consistent with an explosion of dynamite, it may have been an explosion of a loaded other things, such as a shot explosion, I have read Dr. Halden's report; I am not so entirely an explosion as any lead.

To Mr. Wade. Carbon monoxide can be given off when there is heat and so flame, but under those circumstances I would expect it to be in very minute quantities, if there is a supply of limited I would expect to find a percentage of carbon monoxide, even though there were no flame.

To a Juror. I saw no body identified as that of William Nelson.

Made and sworn at the Court House, Wellington,
the 26th day of August, 1902, before me,—

E. T. PATON,

CLERK OF THE COURT, CORONER.

The Inquest is adjourned for the purpose of further evidence, till 10 o'clock, a.m., on the 27th day of August, 1902, at the Court House, Wellington.—CHAS. C. REYNOLDS, CORONER, CHAIRMAN.

Report returned in pursuance of adjournment at the Court House, Wellington, on the 27th day of August, 1902, at 10 o'clock, a.m.—CHAS. C. REYNOLDS, CORONER.

Examined by Senior-surgeon Berke.—Thomas Fowler Wade, sworn, states: I am a highly qualified medical practitioner at Wellington; I am a member of the Royal College of Physicians and Surgeons, London, and a member of the St. Andrews Hospital, on the 21st July last I went to the Mount Kennedy Mine, shortly after 5 o'clock p.m., I remained there until about 8 or 9 o'clock; I saw a number of bodies brought out of the mine, I was there upon on the 21st August, about 5 a.m.; I was present when the Coroner and jury viewed the bodies of Henry and William Mackinnon and William Nelson; I looked at these bodies in a cursory way, I saw they were dead; they were lying in the engine-shed, the cause of death was carbon monoxide poisoning. I do not remember any marks or evidence being on these three bodies; I remained there at the mine during the whole of that day (Friday), and saw a large number of bodies brought into the shed during the day, the signs of death of the others, speaking generally, was carbon monoxide poisoning, gradually ascending; I did not see any other bodies that died from anything else but carbon monoxide poisoning; I saw some bodies with signs of violence on them; I attended a man named George Harding, who subsequently died; he had a fracture of the femoral bone, and nearly all the back of his scalp was torn off, I then saw removed to a hut near by, and with my aid I dressed the wounds temporarily to prevent further injury, and afterwards had him sent to the Wellington Hospital, where he died; I noticed signs of burning on some of the bodies, but I do not know.

know whose bodies they were, I could not tell the number. I would not call them badly hurt, knowing the subject to mean death. I went into the mine with Mr. MacCabe about 4 o'clock on the 31st July, which I was the first I saw a number of men, some were alive and some dead; one of the Gallagher, I think Edward who had afterwards been suffering from severe shock, he was found at Mac's flat; there were three or four dead bodies there too, besides several who were not dead, those who were not dead were apparently suffering from rather moderate poisoning, some who were there were afterwards removed to the hospital, and are still there suffering from rather moderate poisoning, Mr. Thomas Cook, manager of the Mount Pleasant Mine was a victim too.

Once examined by Mr. Joyce Smith. I found the evidence of Dr. Paton and MacCabe previously. I agree substantially with what they said, I should not say that I would like to enter on the question of carbon monoxide poisoning. I am of opinion that none of the bodies I saw were undoubtedly buried by shock as distinguished from great heat, my principal reason for thinking so was the burnt hair and the swelling up of the outer skin, especially about the exposed parts; the hair was actually charred and not only charred, it had all the appearance of being singed and had bushy ends, none of the hair was broken on the back of Harter's head. I should say that evidence of some kind caused the injury, some severe blow, then were signs of burning on Harter's head about the ears, I will not occur positively to this, but I believe it may be. It did not occur to me to take a note of the names of the bodies I looked at, I was more concerned with the living than the dead; I took no notes whatever; I did not see a body from which the head had been severed.

Once examined by Mr. Joyce Smith. I observed the position of the mine in as extent when I went in, it was strange to me going in there, I noticed some of the timber in the travelling road was being struck, I went in as far as Mac's flat, as we proceeded a few minutes of men coming out; I do not know the men's names, I could not agree whether Harter's hair was singed at once, to the best of my recollection some of Harter's clothing was burnt or singed, there was blood and red dust on his face, I believe he was burnt too, that is by a flame or direct flame intense heat, I was the first working man to render assistance; the first man I attended to was John Clark, that was about 2 o'clock, he was badly hurt, his head, face, ears, nose and hands were burnt, he is living now, the front of his chest was slightly burnt, he was suffering from shock, I did not know about carbon monoxide then, I had forgotten it at that time, but I have read it up since. I would not expect to find any signs of carbon monoxide at about 4 a.m. as he was outside the mine in a short, he burnt was burnt from a flame. I was not travelling through mine with Mr. MacCabe or the mine, what did strike me was that the men in the travelling road were as good as it was, when I got to Mac's flat the first thing that occurred to me was that I was not in the open air.

Once examined by Mr. White. When I first saw Clark he was on a bench, he had his working clothes on, there were signs of his clothes being singed, I could not agree positively that his clothes were singed, but I believe they were, I could not agree whether Harter's hair was singed at once or was not singed—to the best of my belief they were, I could not tell you whether there were any signs of burning on Clark's back—I do not feel sure there was, I think the hair was burnt all over and his ears were badly burnt, particularly the right ear, I cannot agree that the hair at the back of his head was burnt, but I believe it was, it was a good way more than hair singed by a boiler, it was speaking more particularly of the nape of his head, there was hair left on his head, there were a number of blisters on his hands, with bluish inside them, some of them were large, that was the general nature of the symptoms on his face, you could get that evidence from steam, my memory is clear as to the blisters on the nose and back of the ears particularly, I do not think that the condition of the hair could have been brought about by steam, I will not agree whether the condition of Clark's hair when I saw it could or could not have been brought about by steam, I should not be surprised if Clark had no sensation less now however, I took some trouble with him, if he has sense now that would not help me to decide whether the injury was caused by flame or steam, the injury to Harter's head could have been caused by a striking blow from timber, if the blow was sufficient to knock him down, he might have got the fracture of the frontal bone by being on some sharp substance, he might also have been hit in front at the side and have had head against some rough substance, I cannot say for the very life, the point of the first was hanging on at the back of the neck, it had become detached higher up; my memory does not enable me to agree positively whether Clark's hair was singed, I took no notes of the case, I cannot be positive that his clothes were burnt, I actually went into the pit about 4 o'clock, when I was having the opening of the mine the air was blowing into the tunnel; it was about 7 or 8 o'clock, I should say, when I got out, I was standing in men who wanted attention while I was inside, Dr. Reid and Dr. Lee were outside of the mine while I was in there, Dr. Lee in the mine doctor, and he would probably know the men, I only recognized the men belonging to the Mount Pleasant Mine, Mr. Joyce and Mr. Herbert Smith, in the mine. I saw one man as I was going into the travelling road, he appeared to be dangerous, he was struggling violently, I do not know who the man was, I believe there were some of the other men that we met on the staircases coming out that were both struggling and delirious, I did not examine the skin of any man in the mine, outside, before I went in, I saw a man named Sam Smith and a boy named Peter and another again; Smith's hair and nose were burnt, Smith's hair was burnt, and portions of nose were present with him like, I had difficulty in pulling them off, his nose and face and hands were burnt, and there was an injury to his leg, I cannot say why, they were of the same kind as Clark's outer blisters, but not severe, they were dried compared with Clark's, the boy Peter was lying in bed wrapped up, he had been drowned, I examined him severely and went on, I think the injuries on Smith and Peter were caused by flame.

To Mr. Joyce Smith. I do not know how many stickies there were in the mine, they seemed more than 2000 there, I will say that the rest of the men referred to by me in answer to your men burnt by flame, I am not sure of it, I am of opinion that there had been flame or great heat passing through the mine, I cannot say whether the red dust had been on the men's hair and then a flame driven in to it, or whether the red dust had been precipitated against his skin, I know the men Smith, I have been speaking of as "Timothy Smith", the position of red I have referred to were embedded in burnt parts of the skin.

To the Foreman, Teddy Powell. He was one of the men who had the red-dust embedded in the skin, and Timothy Smith was the other.

To Mr. White. I pulled the red dust out with my nail, the condition of the skin about that place was not blistered, the skin was blistered in adjacent parts; I did not pick red dust from the parts of the skin.

that were blistered, the skin where I picked the coal dust out presented the appearance of having been scalded, the skin was, comparatively speaking, sound, it was not detached from the underlying where I picked the coal dust out.

To Mr. Bruce Smith: The coal-dust or silicate particles of coal appeared to have been derived late in life. It required more to remove this cause because

In the *Chorus*, I would like to say with regard to Clark that my not being able to say whether he was hurt or not was due to the fact that he was in the engine shed, and those injuries might have been caused by falling, a difference between Clark and Smith became. Clark was near the boiler. I have read Dr. Williams' book, I hear you read from page 2 of *Witness*, I consider that what you have read is a fair description of the condition of the bodies of men killed by steam duty, I hear you read from page 10 of *Witness*, I am not competent to give an opinion on whether what you find and mention, I am not competent to give an opinion on whether the same is or is not the case.

Made and sworn at the Court-house, Williamsburg.

THE 25th day of August, 1898, before me,

THOMAS HOWLER WADE

CHAS. C. MORGENTHAU, Chairman

[illegible][illegible]

the shed. I did not go into the main; I saw some of the people who were rescued; they were Michael Gallagher, he wore the steel anemometer, he was partially clothed; I think he had a flannel shirt on. He showed me signs of burning—that is to say, his hair was singed. I took it in my hand and it crumbled. If he had been subjected to very severe heat, and then taken between the fingers, it would crumble, I think. I was satisfied that he had been burnt here for a time. Woodford was unconscious to a certain extent, but there were no marks of injury to account for this. He had no other injury. I saw no signs of burning about him. There was talking about being caught unconsciously, a man was there saying more than that about Nathaniel; there was nothing to guide me as to the cause of his condition. He was absolutely unconscious nothing more. H. Walker was unconscious, that is all, those are all the people whom I saw at the time that I ran upstairs. I was satisfied that Ed Gallagher was burnt after I had returned to a man there, who said, "Oh, yes, he is burnt." I did not observe anything unusual about the man shot on the ship. I did not observe that the man I had heard of from him was the same man.

Ques. answered by Mr. Agnew. I remember attending one of the Gallagher's about six years ago. He was then suffering from burns. They were extensive burns; the most kind of burns in those on the bodies in this case, as far as I can remember; I do not remember attending a man named John at Kewdale more recently for burns; I do not know the name. I have been thanked for the Kewdale Lodge for about nineteen years. I cannot give you a rough estimate of the number of persons I have attended to at Kewdale for burns similar to those I saw the other day. I cannot remember attending any man during the last nineteen years who have received burns such as this. I have attended men who have received lacerations in the gut. I do not keep a record of any of these things in writing. I have never been called to attend men at Kewdale who apparently were suffering from gas before this disaster. I have had an experience as to the effect of gas at all; most of the men who were burnt and living told me anything as to how they got the burns.

Ques. answered by Mr. Wicks. I have heard that Gillespie, Stone, Richards, and Powell were all working outside near the boiler. I have heard that the steam-pipes were broken; I do not know this. I did not look for the steam pipes. I should have said that there would be a rupture of the volume of steam from a French pipe for three boilers. They were known to the super class of the ship as the steam of Gillespie, Stone, Richards, and Powell; I may have seen the clothes they were wearing, but I did not notice them; Stone had had trousers on him, or rather, the shirt had been raised, and the shirt was raw; the appearances I saw were quite consistent with water having been blown from them before I saw him. I should not like to say, with regard to those four (Gillespie, Stone, Richards, and Powell), that the burns on the skin could not have been caused by steam. I saw signs of burning on Stone's and Powell's face. Powell had a large incision on his neck, but he had not a wound on his chest as I saw him; I saw him unconsciously injured. I am speaking of Powell; the super class (Gibbs). I don't know whether Stone, Powell's maintenance was equal or not; I do not know that he had a new stoker. I judged that he was being smothered by the fuel of it. I could see to a certain extent his face was hot of itself, that would give it a little feeling, but not to the same extent as if it had been burnt. As seemed to him, the steam was not of any use, but it was scalded. I do not remember what part of his face had the skin off, most of the face of the boiler; that I saw had a very painful, and, moreover, when a person is in a confined space like the funnel first, the statement that the burning of the face might be due to great heat or to steam being blown over the face to Edward Gillespie. I have heard of great heat being blown over the face, but not from the ship. I have heard the same with regard to the stoker. I believe in the case of Gillespie that the heat gas grates and penetrates the hair burns into Stone, and I am sure of it; chemistry does not lead me as far as to say that you can get spontaneous combustion, my knowledge of chemistry is not recent.

To Mr. Bruce Smith: Some of the first boilers appeared to me to have been burnt by steam; I am giving my opinion that is all; I am doubtful of the opinion that the burns I have mentioned were caused by flame—that is some of them. I have attended men at Kewdale for burns on the face when they were rescued, Gillespie, Stone, Richards, and Powell were certainly burnt with steam, although they may have been scalded.

To the Engineer: If at any time I had been called to see attend any men who were suffering from the effects of gas, I should have been able to detect it, or at least not I should have known that there was something extraordinary the matter with them; I do not think that there are sufficient embolisms kept at the time to give the death of many men, facts are sufficient for ordinary purposes.

To Mr. Wicks: I was only spoken definitely as to the heat of Stone and Percy Powell.

Made and sworn at the Court-house, Wellington.

This 25th day of August, 1901, before me.

CHAS. C. REYNOLDS, Coroner.

TIMOTHY W. LEE.

Reminded by James Asquith Smith. —William Bruce Smith, an ex-minister. I am a highly-qualified medical practitioner at Wellington. I am a Bachelor of Medicine and a Bachelor of Surgery, Glasgow, I graduated at Glasgow in 1880. When I was last seen I was in the city. I saw some men come out, the first one was George Hagley; he was suffering from fracture of the skull. He had no other injury. I saw other men who walked or were assisted out of the room, none of them appeared to be injured, some of them were delirious. I noticed the body of a young man lying in the blacksmith's shop. I was told it was a body, it was covered up, and I did not see it. Later on I went into the room; we went in the travelling-rail down to No. 6 and saw some, where James' head was seen near the No. 6 night room wall. I saw a number of bodies between where the No. 6 night room was and the travelling-rail and James' body; some were dead, some were lying on the floor, some were lying on a bench about a dozen feet; they were affected; some appeared to be unconscious. I believe they were all unconscious; I saw no marks of injury on any of them. I saw all those that were seen removed from that position to stretchers and slings. Those that were dead did not appear to have suffered any violence; the bodies looked thoroughly peaceful. Some had assumed positions as if they had just died; others appeared to have stretched themselves out as if asleep; some were lying on their backs, some were lying on their faces; there were no signs of any struggle on any man. There were about twenty dead there together, my attention was not drawn to the two McManus, I could not say whether they were amongst the twenty

or why I looked at all the dead bodies in that post with a - lid as we passed, after that we came out by a different road than that by which I had entered. I saw about a dozen bodies that had been brought out in the engineer's shed, the air made was good, I started to go in about half-past 8, and arrived there between 8 and 9.

Cross-examined by Mr. Henry Smith: I have no special knowledge upon the subject of explosions or mines, I have had no occasion to make a special study of the symptoms of persons poisoned by mines or powder. I did not meet any man all along the travelling road up to the point I have mentioned who appeared to have been burnt, I went into the main room after the explosion, almost as soon as anybody, I did not remember all the bodies we met on the way; there may have been men with burnings I did not see. I examined all these bodies that were lying down after we left the main travelling road; I have seen four bodies in connection with the disaster who were burnt, they are Stone, Richard, Schlegel, and Patrick in the hospital, I believe they had been burned from above, they may have been burned from outside, but I was not sure, I believe the cause of this has been changed now, Stone, I felt the best, it was really, it was like the end of a hair when put in a candle, it was not clearly smelt up; I did not see signs of burning in any other than these bodies.

Cross-examined by Mr. Lyndale: The air which I say was good did not strike me as being particularly warm or - I did not feel cold, I am not prepared to say that it was considerably warmer than the air outside the mine, I noticed no white smoke or black dust floating in the atmosphere; I did not notice any coal dust floating about, I remember seeing a horse near James' head; I did not examine that horse, I did not notice that the horse appeared to have been smelt; I did not notice anything about the path of the mine that I was so concerned that there had been there.

Cross-examined by Mr. Wade: The last time I saw bodies in the shed was on the night of the 24th July.

Heard and sworn, at the Court-house, Wellington;
the 27th day of August, A.D. 1902, before me—

W. D. KERR.

CHAS. C. HERRICK, Coroner.

To Mr. Henry Smith—John Morrison, married, states: I was one of the workmen and deputies in the Mount Kenble Mine. I was the night deputy; there are four deputies and three, a foreman has nothing to do with the lamp in the shaft, there are called foreman or foreman; there are two night deputies and two day deputies. I am one of the night deputies, and McManus was the other, Frank Douglas and Evans were the two day deputies. I recognize, and when told that my position was a responsible one, I have what was the object of my job, compelled to report on the condition of the mine, and put my report in a writing, I have that there was a great difference between saying to a number of men "It's all right, and putting a stamp down in a book in a mine, which I might be confronted with at any time. I don't think I am justified in saying my report is a book, during the seven weeks I have been deputy I have been in the habit of writing up one book only, that is the book [Richard G.], there were four books in the book before that. I am deputy before the 24th June last, I would report in a book before the 24th June, therefore of the last entry in the book [Richard G.] is on the 24th June, I must have made a report in a book before that, I only had one book at a time, I never had any of the book but one in the shaft [Richard G.], I used to take the day book up and give it to the under manager, a duplicate is kept at the top of the shaft on the ladder of the book. That book was kept in the shaft outside the pump, the book was destroyed with me at night and written in the mine mode, the men could have looked at my report in that book before going on if they wished. I do not think that a miner ever looked at the book during the seven weeks I have been there. I have sometimes given notice before the report was completed, some of the men may have come in and looked at the book, but I don't want of them wish to work on the "all right" assurance before the report was completed, I always knew the mine and did not write my report, study of them when I was appointed deputy, I knew the special rules and the general rules under the Act.

Heard and sworn, at the Court-house, Wellington;

JOHN MORRISON.

This 27th day of August, 1902, before me—

CHAS. C. HERRICK, Coroner.

Report prepared for the purpose of further evidence till the 24th day of August, 1902, at the Court-house, Wellington, at 10 o'clock a.m.—CHAS. C. HERRICK, Coroner. Cross-examined, Wellington, 27th August, 1902.

Report received in presence of witnesses, at the Court-house, Wellington, on the 24th day of August, 1902, at 10 o'clock a.m.—CHAS. C. HERRICK, Coroner.

To Mr. Henry Smith—John Morrison, married, states: I do not know anything about the two letters which are missing from the front of the book [Richard G.], I would not write a report before the 24th of the month till 6 o'clock the next morning. I did not write my report of 9 p.m. on the 23rd till 6 a.m. on the 24th; so men could have gone in to work between 8 p.m. on the 23rd and 3 a.m. on the 24th, I produce the book previous to 2 o'clock [Do I put in next, Richard?], one of the rules which is regulation. I believe you will find that the special rules in reference to up down commences when Rule 8. I know that you have just read from Rule 8, on "The shaft report in the Manager, Under Manager, or Overman is danger that may arise from time to time arises from any cause, and in these circumstances shall take such steps as he may think most desirable for the recovery of the workmen out of the mine, and of removing the danger." I cannot recollect anything to the Manager when I heard the book being. I do not recollect anything to the under manager, I did not take any steps that I would not have taken had I not known it, because it was not dangerous, I knew of the existence of Rule 8, I knew of Rule 10 as follows—"He shall at least once in every week examine, so far as is practicable, the state of the waste workings and on a day, night, and day a day report of the state thereof in a book."

book kept at the office for the papers", my report which I made with regard to the waste was put into the same book as that in which I put my daily reports. I examined waste workings on the rope made some every night; my daily examination of the waste workings was limited to the main roads, there are some goafs in my district; about that, I think, every night I went round the 32-acre and 15-acre goafs to examine the waste, I did not go round any of the other goafs in my district every night, I did not go round any of the other goafs once a week, I did not report once a week any examination of the waste, I reported once every month of my examination of the waste workings, in addition to going round the 32-acre and 15-acre goafs every night, I examined the left open road side of the 41-acre goaf, and also the left side of portion of the 15-acre goaf, and also the right-hand side of the second right open road of the 32-acre goaf; no mine ever requested to go that far but very far to the mine, I know rule 4 under the Act which requires me to report in writing every day of my inspection of the places where the men are going to work, I know that it says, "And such report shall be signed by and made, at the same time, and in the same manner, as if it were a report of the person who made the inspection." The report on the 17th June had it in Mr. Murray's name, signed by me, there is another on the 17th June, written by Mr. Murray, and signed by me, I do not doubt that there are more reports like that, there is a report on the 18th June, not signed by me, it is in my writing; I will not say that the running of the waste was only done to get rid of the water, my knowledge no more put any water out on any of those roads except to get rid of the water where it was accumulating, we had an unlimited supply of water in that section, I would say again that it was more common for me to have one of the descent roads in that section, that is to say, it is the fourth left, rope road, it is deeper than any other road in that section of the mine, that is to say, it is the fourth left, rope road, I cannot name any other road in the mine which had more dirt on it than that, I do not say any attention to the rule in any other parts of the mine, the water was put out on the roads from this square tank, they were the same tanks that Frost had in that work, the tanks were filled with water and taken on to the road, and then the plug pulled out, I did not know when those men to be fired when I was on duty, it was not part of the men's duty to tell me when they were going to fire shots, so far as I know shots were not being fired on the 4th, I never saw a descent road with shots having been fired near No. 4 left, I cannot say whether shots were fired, in my knowledge shots were not fired from No. 4 right up to the second left, on the basis of my knowledge there was never a shot fired on the 4th right road since I have been deputy, I cannot say whether the situation did or did not fire shots since I have been deputy, it is only in very big shots that they put shots on, since the disaster I have no evidence of one shot having been put, that was on the 22nd January when I have worked a X on the 22nd, that is the only instance I have seen of a shot having been put, I cannot say when that shot was fired, Jim Hendon was working there alone on the 22nd, he was Frost's man in the 4th right, I saw him there, I saw him marked a circle in blue, he was dead, Hendon and Son worked in 20, where there is a large square mark, they were found dead, I think, at Powell's 21st, Edgar Brothers worked in the next level to that, where those men were in blue, they are both dead, I think they were found at Powell's 21st, Hendon and Son worked at 20, where I have marked a circle with a circle through the middle in blue, Hendon was found at No. 4 right, at the tank, I have formed my opinion as to the part of the mine where the disaster occurred; when I have drawn the rope made some, the circle is in line with the cross in it, where I think the disaster occurred, on the 32-acre goaf, that part of the goaf had already fallen before, but now it is some stronger, I could not do at what I am at, I had not seen it for some days before the disaster, I examined that place about two days after the disaster as near as I am able, my reason for examining that place with the disaster was that I knew there was going to be a fall there, I know the indications of force from that point back were from the fourth right side and the second left; there are other facts concerning the indications of force besides what I told Mr. Wade the other day, I gave Mr. Wade all the indications earlier, except the one fact, which had originally been across the rope road, which is now side and supported by a prop on the other side of them in those place yet, but they are both on to the outside side of the square, there is a wheel of a ship from 152 yards from the fourth right edge, lying at an angle, 18 yards further in there is a wheel and axle, 18 yards further where there is a ship standing up against the rib, bottom up, the ship is upside way, and there are no wheels on it, one part of a wheel is lying underneath it, I cannot say whether that other wheel and axle belong to that ship, this is the only ship that is there with the wheels off, the side is one of the ship which is standing on the end, 6 or 30 yards further in there is the part of a wheel there on a ship lying across the tank, it is whole, except a piece broken off one end of it, that ship also is empty, there is nothing to show whether they were blown full or empty, I think they were blown empty, 18 yards further inside at that ship there is the side of a ship, about 30 yards further on there are four or five chairs, I am of opinion that they have been forced together there No. 4 right, between them and where there is a house there are other ships, some broken and some not, I form the opinion that they also have been forced where from No. 4 right, full cranks were coming out of the looking from the place, I do not believe that the empty cranks were up there, I believe they were blown down.

Mr. Mr. Wade: Whether the report was finished or not, when the men were going in, in the morning I always give them the word, none of them ever made a complaint to me, I made an examination of the places where the men were going to work, also went to the 4th right, after they had gone to work, I had other work to do, which I finished about 2 o'clock in the morning, there is an entry in the book which I (Edgar) signed, Report Book from 2nd June, 1901, to 2nd September, 1901, put in, marked Exhibit J, on the 24th June a joint report, signed by Edgar and McElroy, of an examination of the inside return airways and waste workings of No. 1 right, No. 3 right, No. 5 right, No. 6 left, No. 1 and 2 left, the report says all these places were found in good order, the first entry in that book on waste workings is 17th August, the inspection of the waste workings at the book marked Exhibit K (Report Book from 1st September, 1901, to 31st December, 1901, put in, and marked Exhibit K) is reported, on 11th September, 1901, October and 24th November, inspection of waste workings at the book Exhibit L (Report Book from 1st December, 1901, to 31st March, 1902, put in, and marked Exhibit L) are reported on the 26th December, 1901, 24th January, 1902, 21st February, and 1st March, inspection of waste workings no report in the book (Exhibit M) on the 25th April, 24th May, 21st June, and 29th March, the morning of the 21st July is the last time I was in the front of the waste on No. 4 right, as far as I went there the waste was all right, none of gas and everything.

back completely then towards the watchtower shaft, I reached the second door of the watchtower shaft; I opened these doors, I met the same staff there as I met in No. 4—that is, the smoke, that is the reason. I opened them, I then returned back and sat down for a while. I have now drawn on the map my course from there up to the door of the watchtower shaft. I opened the door for the purpose of getting off the smoke. I took down a good lot and gathered as many men as I could. I saw a number of men there; they were in a pretty good state, they were coming straight from their places, they were all right, but they were getting very excited. They were in a great hurry to go; I sat down inside the door of the watchtower shaft and told them to sit down a bit; the men were facing me to go by saying, "Go, Drury, Go, Drury"; I then left to go out, I have marked on the map about the course I took coming out, there was a great number of men who came out with me, I believe some men remained behind at the shaft—I do not know, after taking the lot of arms out I went into the same back to No. 4 right up to the same place as I was before, I went back by the same travelling road, when I was going back to the shaft I saw a number of bodies in the main road on my way back, I think they were dead. I did not see either of the Marston there, when I got back to the watchtower shaft the second time I did not see any sign of smoke, the air was pretty good, I went up as far as the top of the No. 4 shaft; I did not see any dead bodies there nor persons alive, no more there a bit and then returned back to the shaft, Mr. Robinson and Daniel Robinson, Johnson, Clanning, Matt. Jones were with me, I could not tell what time it was then, we then helped to carry some bodies which were lying between the shaft and No. 4. I did not return to the same that night, when I went out that was it was before, I and a clerk in the morning, I went into the same the next day. I went into No. 4 again—that is, Weyman and Drury's station, I then saw a number of bodies in that district dead, they were in different parts of that district, I have been in that district once.

Continued by Mr. River South: I have got about fifty-two years' experience in mining—that is, in South Wales and New Zealand, Mount Kembla in the only mine I have been in Australia; I have not started at a place as to where the disaster originated; I cannot make it out; you can say as what I think it was by the direction of the blast, it occurred somewhere about the fourth right angle, I commenced the rope road and all the things as it. I have marked the position that the disaster occurred within the area marked "A" circle, I do not think it had anything to do with the 50-ton gun and on the night of the second night rope road, I was very sure I think it occurred within the circle "A". I do not think it had anything to do with the 50-ton gun, and I was very sure I think it occurred within circle "C". I say that if it took place in the 50-ton gun, I think it was on the side marked "D". I think a track place within the area marked like an envelope marked "E", I say that because the blast seems to have blown upwards and onwards from that area, the reflections go to the top in having come out of No. 4 right, and having gone up and out of the shaft, there are two cut-throats right opposite the No. 4 right on the main first rope road, and the entrance in there out throughs had been blown in different directions, the mine one had blown down right, and the other one had blown down upwards; you could also see signs of the blast in the wall, and the shape twisted about; some of the ships were full and some empty, the ships inside of No. 4 right had been blown towards us by as I could see and outside upwards; it looks as if the force had come out of No. 4 in a sort of funnel, and then branched along the road which ran on the right. I noticed other things on the road which had been forced in the same direction as I have stated, it was not my business to know of any previous bit in that district, I was not acquainted with that district at all, I have been up a disaster like this before, I am not a reader as a warning, I remember that there had been some great losses at work, what that force was I cannot tell you, during my forty years' experience I have never noticed or heard of anything which would produce explosions but gas.

Once resumed by Mr. Knight: I do not remember leaving any of the men saying that No. 3 was on fire, no men coming towards Powell's Flat, and as we got down there the smoke and stuff stopped us; it was when smoke, not very white, but it was of a white colour, I went the afternoon, there was no real dust flying about as I went down towards Powell's Flat, I could not say whether I had "been satisfied". I do not remember a word that passed between me and Jones as we went along; I think something when we met were men but I cannot say that it was afterwards, I do not want to say anything on the point as to whether I do or do not know the word of after-damp—you cannot be sure of it, I think now that the smoke I saw came from some kind of smoke and so forth, I do not think it was a blast of gas, I do not know what kind of blast it was—I have no thought about it, it could not be a blast from the watchtower shaft, it could not come from the outside out from the inside, I think the blast came from the area marked on the map like an envelope, I suspect any blast was in that area to cause the blast, I was looking for Powell's Flat to see the return, and try to see what was wrong in No. 3.

Began and ended, at the Court-house, Wollongong, }
 On 25th day of August 1902, before me, }
 CHAS. C. BOWMAN, Coroner.

DAVID STANS.

Inquest adjourned, for further evidence, till the 26th day of August, 1902, at the Court-house, Wollongong, at 10 o'clock a.m.—CHAS. C. BOWMAN, Coroner. Court house, Wollongong, 26th August, 1902.

Inquest resumed, in presence of adjournment, at the Court-house, Wollongong, on the 26th day of August, 1902, at 10 o'clock a.m.—CHAS. C. BOWMAN, Coroner.

Continued by Mr. Knight:—David Stans recalled, stated: My duties as a day deputy would not include looking for gas. Kembla Mine may have been full of gas and No. 3 not know it, it is not my duty to look for it, it is your duty to mine it; I was in Marston's room below the disaster, I have nothing about it, there was dust in my room, I do not know that the No. 3 and was a good deal more dusty than my room, I do not know anything about it.

Once resumed by Mr. Knight: I saw a short uncoiled road a prop in the main heading (the level heading) and in the face, my 30 ft. bit parts from the face, it was the bit of the cut through where Marston was working; there was a no. 40 ft. close by the prop with the shaft inside it; there was a shaly hanging.

have looked over the report book many times during the year 1902, but not in an official, I do not remember looking at my special report, it was not my duty to look at the foreman's report every morning; I would know that the papers were safe, because the foreman was there and he would know. I got my instructions from the foreman every morning, and if there is anything wrong, not only go but anything else, he will put it out. If there is any bad work or anything, we take everything for nothing, only the place the foreman mentions anything wrong, I would take the safety of the mine from the foreman's word, I do not think I have seen the book in which I used to report for twelve years, it was full of reports, it was some kind of a diary book; that book was kept in report my danger, and was, generally had one of those books for every year; we gave up having those books when the present ones came out, we have been in the mine since the day of the report, I have been in the mine for the day before to make these reports in, all the reports I have made concerning the Keweenaw Colliery for the past five years are in those day books; those books are not printed with duplicate like the foreman's books, it is some kind of a diary book, the books I am speaking about are not those already mentioned as evidence, when I make these reports of mine in the books, the books are kept at the office, I give each daily report, Frank Dungey used to sign the report too, he was the chief day deputy; it is not a good report, we have the mine. I do not know where the report book before the disaster, I left it in the foreman's office under the mine. I do not know where the disaster and cannot but see it, we generally get them every year, I have looked in the mine since the disaster and cannot but see it, I could not make the spot where Penn's body was found, but it was somewhere about Penn's Flat, I think (Barnett book put in and marked Exhibit M), I look at the reports of the 31st July and the 1st August of this year in the book (Exhibit M) and say that the reason the reports appear on those days is that I turned over to other days in mistake; I discovered that I had made the mistake after the reports were written, it was in July I found it out, when I found it out I put the reports in the right place; Nelson found the mistake and I made a hole in the place, the place where I think Penn's body was found, I am not sure that is the place, the body was then discovered when we found it, I cannot think we saw any remains at Keweenaw, but they happen sometimes, there are many wells without cover, I have seen the reports made by Dungey, I have been there, a mineral shot it out which has not fired, I see it, and a statement that is one which has blown out and was but the effect it was intended to have, I have not seen any statement about for twelve months in Keweenaw.

Do Mr. Wells: When I went to work in the morning, I would go in between 8 and 10 past, if the foreman had reported all safe, I would see the mine manager first of all, if the foreman had reported that some place was unsafe, the manager would tell us and then I would go there and see about it, I would go to Dungey's place and see if the roof was all right, and if the roof was all right, and if he was doing his work all right, the foreman's inspection in between 3 and 7 o'clock in the morning; the first shift in at work before I came into the mine at all, I go to every working place in my shift in my mine and examine the place, I see if everything is right, and if there is anything wrong I make them put it right, there is no occasion for the foreman before the mine is right, and my inspection while they are at work, I do not remember there ever being any trouble about gas.

To the Foreman: The working place where Martin Smith was working is not higher than any other part of the mine, it is lower than other places; I have never had occasion to report about any of the mine going in the mine workings. I never heard of any of them going into the mine workings.

To a Juror: The more venting shafts you have the better.

To a Juror: Another shaft would be a benefit, but I do not see it is actually needed, as there is no gas.

To a Juror: I do not know the stappings of the 30-acre pit in No. 2 section; the stappings in my district are from 4 to 8 feet thick, sometimes my plaster the outside of the stappings with mortar, I found the stappings out in some places in the mine taken in both the shaft and No. 2 sections since the explosion.

To the Foreman: If a man wants to stop a shaft of mine, he should use his own place; I never found them going into mine workings.

To Mr. Bruce Smith: It is not a fault that I used to write up my reports three or four days ahead, my first entry is under the date of the 7th of August, I never wrote two reports at once; if I made an entry in the book before the proper day, I did it by mistake, after being ordered up about it, I had done, I used more time to have to scratch it out and write across a "No gas" or the wording of the report at the same all through the book, there is an entry on the 29th July, which I had to write out, and write over it "No gas"; I found out I had made the mistake in fact, the entry which is in the book for the 29th August is correct for another day; the book was kept in the company's office, the underground manager examined the book, and he found the mistake when I dug it; when I reported on mine workings I entered them in my book (Exhibit M); I examined the mine workings every day; I did not put in a book, the report of the 27th June in the book (Exhibit J) does not refer to mine workings, it refers to the mine and to the roof; the report of the 28th June in the book (Exhibit J) does not refer to mine workings; I have never reported on the mine workings either of the books.

To Mr. Wells: Mr. Murray and Dungey used to report on the mine workings since last year, and recently Mr. Murray and Murray.

To the Foreman: I put the report of the 29th July in the book at night; that was the day part.

Made and sworn at the Court-house, Wollongong, }
the 29th day of August, 1902, before me. } DAVID EVANS

Case C. ROBERT, Coroner.

The report is adjourned, for the purpose of further evidence, till the 1st day of September, 1902, at 10 o'clock, at the Court-house, Wollongong—Case C. ROBERT, Coroner.
Court-house, Wollongong, 29th August, 1902.

the place and that is the only one that required watering that I know of. We have tipped the water in a hundred places; there was no dusty place that required watering in my entire career except Galt's garden bed. I do not say that in every other place, but Galt's garden bed the plug was pulled right out and water let go. It depends upon the dip it is so to speak, and the water would run over the plug was pulled, sometimes it would run in both directions. Now the fourth night when it was a wet, up to the beddings, I was down under up towards these beddings whether it was water or not, I do not remember, I say that we have downed water up there when it was not wanted; I do not know that it would give me more leisure to take it there than to take it to the place we used to tip it to be sure. Galt's garden bed, the garden bed where the soil was brought out of, and that is where the first wet if there was any dust, the fourth left such was no dusty, the second left as far as we liked to take it on that road, the traveling road do not need watering. I have after heard of traveling roads being watered, but not at Kilauea, we have no appliances for watering the other the road, I cannot say why we have not got such appliances, the roads and road do not require watering because there are not dusty water comes from the volcano. I saw them at least men who had been buried, there were Kilauea, Stanford, Thomas, York and others and one, I do not remember a man named Gallagher being buried at Kilauea, I may have heard of it. I do not remember being buried, I have been at Kilauea for about thirteen years, although I have thought very carefully about it, I have been at Kilauea for the thirteen years, or so to speak, I do not ask anyone where it was the water, I wanted on my own responsibility, it is a common thing for a fireman to chalk his directions where he wants the work done, if the work was no broken piece the dirt marks would be on the props, and if it was on the roof it would be on the roof, if it was in some place he would mark the stuff that wanted shifting, if there was anything else he would make it on the black board in the fireman's cabin. I do not know anything about anything, if anything were written on the face it would be for the men and not for me, if the fireman or something that wanted done in his opinion he had no mind to go back to the black board, he could see the men on the shift, he would mark it on the place where the work had to be done and tell the men, if there were no place in which to mark it he would have to go and see the men, he knows where the men are working; I have never known in my experience any sign from the fireman or the deputy as to any work to be done to be marked on a ship, the fireman would not mark danger on a ship, he would mark the danger; heard up, some of the men's writings are asked off, they have stoppage, set of hours and so forth.

Those occurred to Mr. Webb. I have never heard of a fireman having got and talking the workmen to water the gas himself with nothing. Deputy was the day deputy in my district, and Morrison as night, instructions as to my place that wanted cleaning would come from the day deputy, the night deputy when he was with him do the work that the night deputy wants done, the best of it was pretty strong that same or so at the top of the second right on the fifth—it nearly blew us off our feet, anyway, so were at the sight where the two roads go round the big goal, I suppose I saw down the road before I got the smoke and dust, I have marked that place on the glass. I saw the smoke and dust were going back to the main road when I was at it, I was going with the men on the road, the second night rope road took me from the daylight building, that was the current part I got to the junction of No. 2 right and No. 3 main rope road, I do not think it would be a time when all the men would be in the mine, outside, the men and boys who were waiting at the second mouth then were on the Kilauea ship men, who were working near the tunnel mouth. Mr. Rogers was not at the mine at that time, I met Burns and Nelson past the mine of the traveling road at the bottom of the fifth rope road, they were going out towards the mouth where I lost my men. I went up round the fifth right when I left them, the surface water coming from the crop writings runs down sometimes on to the main road and the traveling road. I am speaking of No. 2 traveling road and No. 3 main rope road, the water comes through the old workings through the openings, in some of mine we got water all along the traveling road—that is, on the floor, the road dips from the telephone cabin, and from the fourth right it dips the other way, it is not another, the water would run along the face of the road, I cannot say that the road and water were not, but there was no dust on the road and mine is such of, I am speaking of the rope and traveling roads to No. 3 going parallel to the main rope road, the distance to the main rope road, but going to eight angles to the main rope road the mine I to the left was on the dip, the main from the first two holes in the left of the main rope road and that from Mauna Kea, come down the main rope road, and all the coal from all these holes to the left again went along the line marked with a blue screw, and over Galt's garden bed, there was no traffic in the mine between Galt's garden bed on the left the fourth left rope road on the north side, No. 2 main rope road on the third side, and the cut through runs the face on the fourth side—that is, on the left, it was not a shallow in Galt's garden bed and the fourth left rope road, Stanford's garden bed has been under water during the whole of the last six months, and longer than that, the water comes in from the window, we have to take that water away, if there was any place that the water manager are wanted watering and I do not see it, he might tell us to tip water there, when I say that the main rope road was not a dusty road, I guess that there was no dust there to speak of, we always cleaned up any dust that might have fallen off the plugs, when we pull the plug out quick, the water comes off the heading if it is tipped in any place like a level place, it will spread before it can get away, the biggest rock I should ever find, built a 300 yards to the mouth 180 or 120 yards, the last time I saw Mr. Burns and the men was with Mr. Lewis, a month or two weeks before the disaster, I saw him then in the fourth left rope road at that time, I never had any complaint from him at any time as to the place not being clean or dusty.

As Mr. Burns said: I say that the current on the plug was wrong so far as the air is concerned, the air does not travel as shown on the plan. I am speaking of the mine on the second night rope road, those are the only arrows that are wrong, the smoke and dust were going in the same direction as I saw, and I understood, nothing was asked from No. 2 right or No. 3 right for 300 yards, nothing was asked up the main road to the fifth right nearly up to the end of the heading, I did not know any confusion from that.

As the Disaster: From the inside into the telephone cabin in the west workings: the second west workings is the telephone cabin, the left hand black rope road, I saw the body of Dangers, as near as I can say, it was headlight but could not see the fifth right tunnel dials, I saw the head, I saw the arm, the head and the body right; I do not know whether the hand at the arm was near the body, I saw the arm about half-past 10 or 11 o'clock the same night.

night (Thursday); I do not think they had been moved, there are no signs at the tunnel and other points that I know of to keep people out, there is no sign at Fawcitt daylight heading, that is the only one that I know of, any person who wanted to come out there could go out at Fawcitt daylight heading if he wished, none of the men go that way, but a good few come out that way, I have not seen anyone at the end of the north.

Made and sworn, at the Court-house, Wellington,
this 14th day of December, 1884 before me—

Case C. *Blasphemy, Contempt*

A. FUCHT.

[illegible][illegible]

Made and sworn, at the Court house, Wellingburg,
the 1st day of September, 1882, before me—

TABLE 4. *Revised, Continued*

W. M. ROGERS

214

The report is supported for further evidence till the 2nd day of September, 1902, at 12 o'clock a.m., at the Court-house, Wollongong—Cross C. HERRICK, Counsel. Court-house, Wollongong, 2nd September, 1902.

Report resumed, in pursuance of adjournment, at the Court-house, Wollongong, on the 2nd day of September, 1902, at 12 o'clock a.m.—Cross C. HERRICK, Counsel.

Cross-examined by Mr. Tynghill.—William Evans, recalled, states: I produce the book I was speaking of last evening (Book put on, and marked Exhibit N^o 1). I made the last entry in that book on the 30th July, I think; after I had made that entry I left the book on a shelf in the office. I took the book out that morning, the entries were made each day, at the afternoon ceremony, on no occasion have I left two or three days to pass and then entered the book up for those days, the entries on the 28th, 29th, and 30th July were not written at the same time. I did not do any writing last night or this morning, they were written on the days on which they appear to have been written. I have written away as I write it, I cannot say whether I entered in that book as soon as I do. I entered of the mine about a fortnight before the disaster, I often visit the mine and do not enter it in that book, when I made an inspection of the mine there is no other book that I report it in, the amount of ventilation in the mine is recorded in a book kept for the purpose. I have not got that book here. I am not certain when I last saw that book, but it was in the month of July, in my inspection about a fortnight before the disaster or I had a face lamp, Nelson was with me on that occasion, so one else was with me for the purpose of inspecting, Nelson had a face-lamp, neither of us had a safety-lamp, we did not go into the Adams gash at all, we went into the mine about 5 or half-past (about that), and came out about 2 o'clock perhaps, I do not remember how many hours I was in the mine, I see the entry in the diary on the 1st July, that is the inspection I have referred to, from that up to the time of the disaster I did not make any special inspection of the mine, I will not swear whether I did or not; there is no book anywhere, I have a report of inspection by me, only the diary (Exhibit N^o 1). I did not think it of importance to write down the result of my inspection, I have certainly made what may be fairly called an inspection of the mine, I have often made an inspection, I took the report of the foreman as sufficient for me with my own observation; when I have made inspections during the last ten years I was not looking for gas only along with the other things; I was looking for everything, gas included. I did not look for gas on my inspection of the 1st July even amongst other things, I cannot tell when it was that gas amongst other things I was looking for, the mine works were, stopped about seven months, if I had thought there was gas, I know that for it, it would have been possible for me, have the waste workings inspected one week, I was aware of rule 12 of the special rules before the disaster, I read the rule like this: "Once a week, or as often as practicable," I am not sure of again that there was no occasion to have the waste workings inspected once a week. I do not know now that I strongly interpreted that rule (rule 12 of the special rules), I could not interpret the underground workings every day because I had other duties to do, there was nothing in the mine to prevent me inspecting them every day, when the mine "went into the mine this morning," appear in the diary it means that I inspected every part of the mine that day, I know that part of rule 2 of the special rules which you have put out to me, I never personally took the amount of ventilation passing in the mine at any time, I relied on the surveyor Mr. Warburton, to take the amount of ventilation. Mr. Warburton had to make the air once a month, he had to take it at the beginning of each month, the volume of air going through a mine varies from day to day, one day more and another less, a hot day outside would interfere with the current ventilation, and a cold day would make it—there is nothing else in my knowledge that would vary the volume of air in a mine. I have never read any book to show what varies the volume of air in a mine, I do not want to change that answer, I know a little about mine surveying, I conclude that the best mine from the French pillars, because of the things I saw blown up and down when and out of, I have not heard that Mr. Harrison has a valuable theory, I cannot say how often within the meaning of rule 2 of the special rules I inspected the underground workings, I know the part of that rule which you have read and asked to read, the place was regularly plotted every three months; the last plotting was done by Mr. Warburton, I did yesterday that, I never knew of the existence of any gas in Kembla, I am speaking of the diary, I have seen some black damp there, I saw some there a week ago last Saturday, I found the disaster I remember strong black damp in Kembla; that was four or five months before the disaster, there was a little of it in the fourth right, I discovered it by the way the flame lamp was burning; it was in the fourth right pillar just at the edge of the waste, it did not get my light out. Nelson was with me, I believe, when I found it. I put candles down the road to turn the air into it, I believe Nelson put the candles up himself, having put up the candles, I went on to another part of the mine. I did not visit there till the disaster was put up, but it was put up, I know, for I saw it afterwards, I did not report the discovery of that black damp in any book, Nelson would have reported it in a book; do not know, I did discover black damp before that, I did not report it, that was in or seven weeks ago, that was in No. 4 left off the main tunnel, going to the shaft, back that mine up till four or five months ago I did not find or know of any gas in the mine, there are the only two occasions I have known of gas in Kembla, I was in Court a few days ago for evidence, I did not know how big that is, he had often discovered gas, and had reported it to Mr. Rogers, I cannot remember Evans reporting gas to me, I will not swear he did not report it to me, it would be in a report book if he did so, in the diary's report book, I do not remember gas being reported while I was under-manager, I cannot say in my diary whether gas has been reported or not, everything dangerous, I told them to report it and let us know, if gas were in the mine I would regard it as a matter of serious importance, during the time I have been under-manager and the time I have been manager it has been my business to find that there was no gas in the mine, I knew that gas was found in the mine years ago, I knew that there was no gas there during the last ten years, because the deputies would have reported it if there had been and I would have known about it, I heard, I suppose, my first a week before the disaster he discovered black damp and did not report, in my opinion, the foreman thought black damp, which he under-manager, was dangerous, he should have reported it, and not otherwise. I do not say that Harrison was the sole culprit; I was at Kembla, while Mr. Hamilton was manager, the whole time; I was under-manager, when he left I became manager, I always thought that Mr. Hamilton was a competent manager; I do not

content about entering the roads to keep the dust down; the contractor gave an allowance for watering the roads, he has to do that work under the same contract; there is an special charge for watering the roads. I have given orders to the contractor to water some parts of the main, but not in No. 1, to my knowledge.

Cross-examined by Mr. James Smith. I have had about forty-five years' experience in mining. I think the disaster happened on the 30-acre gulch—I mean by the word "blast," which I used yesterday, a blast of wind or air, I think a blast of air alone would kill him; I suppose some of the men in this disaster—those who died peacefully—died from after-damp. I cannot come to any other conclusion; I know that after-damp follows on fire, I think there has been an explosion of some kind, the water troubles out of the stop that has the coal in sometimes when the men get water into the stop, you never help having some coal dust about the place.

Made and sworn, at the Court-house, Wellington,
the 2nd day of September, 1902, before me,—

CHAS. C. HERRICK, Clerk.

W. E. ROGERS

The jury respectfully decline to bring in a verdict on the evidence before them.—JAMES SMITH, Foreman. Court-house, Wellington, 2nd September, 1902.

Deputy appeared for further evidence till the 1st day of September, 1902, at 10 o'clock a.m., at the Court-house, Wellington.—CHAS. C. HERRICK, Clerk. Court-house, Wellington, 2nd September, 1902.

Deputy returned, in presence of adjournment at the Court-house, Wellington, on the 3rd day of September, 1902, at 10 o'clock a.m.—CHAS. C. HERRICK, Clerk.

Cross-examined by Mr. Wade.—William Rogers testified, stating: I have actually worked as a coal-miner, I worked getting and as a coal-miner for about fifteen years, that was in North Wales, sometimes I worked with safety-lamps, and sometimes with safety-lamps, I have had a good experience of working with safety-lamps; there was fire-damp in the mines I was working in at North Wales; it is about thirty-five years since I first knew to work as a miner. It is about thirty years since I first came across fire-damp, I left the old Country about fifteen years ago, I have accepted the post of an underground manager; the place I was underground manager at, North Wales, for about seven years where I was underground manager in North Wales we worked with safety-lamps, there was government inspection of coal-mines in England and Scotland; at that time here, they used to come round and see the way I worked the mine; I got a second class certificate while I was in Scotland, that was the under-manager's certificate, that was given by notice in accordance with the Coal Mines Regulation Act, when I came out here first I was at Grete Colliery, I was there about nineteen months as underground manager; Mr. Russell Robertson, who is now the manager of Hibernia, was then the manager of Grete, he was also manager at Hibernia and Wales, where I was; I came out here through communication with Mr. Robertson, and I came out by employment direct, as soon as I came out, when I was at Grete, the Government inspectors who used to work there were Mr. Deane and Mr. Baker, since I have been at Mount Kemble, the inspectors were here Mr. Brown and Hebble and Mr. Bates and Mr. Atkinson; I have been round the mine with the Government inspectors frequently, when I was underground manager I always went, I have also been round with them when I have been manager; the underground manager always goes with the inspectors, the Government inspectors come frequently, once here about once a month, so one of the inspectors let us say I was found fault with so as to the way the mine was managed, they might make suggestions, but they made no complaint; the Government inspectors examine the report books when they come, they put their initials in the books; I look at the entry in the book (Exhibit C) on the 17th July, 1902; Mr. Bates' initials are on that page, the inspectors used to examine a number of pages; the book was always available for the inspectors, I do not know how much of the books they might look through and read, the inspectors would take three days to do the whole of the mine, they could not do the whole of it in one day, they would not finish off the whole three days after the day they were sent; I consider myself a good practical man in coal-mining; I know special rule 23 in the employment of witnesses otherwise; Mr. Lewis was my underground manager in the early part of this year; I appointed him; he was at Kemble for about two years, and left there somewhere about last May; he was, so far as I know, a competent man for the position, he held a first class certificate; Nelson took Lewis' place as underground manager; Nelson and Lewis, both of them, were at Kemble for about one or two years, last of all, in the absence, then Deane and Deputy, he held the position of Deputy for about six years; Selwyn was a competent and efficient officer, he was selected by me as underground manager, so far as I know, he carried out his duties properly; I have known John Morrison for over thirteen years; he is a competent man, I have known Douglas since I have been at Kemble, thirteen years; Douglas was a competent man, I look at the two books (Exhibit E and F); one is written by Douglas and the other by Deane; they were kept under my instruction; there is no rule or Act of Parliament that compels me to keep those books; I am not compelled to keep up any book (Exhibit S); the two previous days, the witness that the man got in the morning was not the same as the man the day before, we were very anxious, and so were the inspectors, to find out when the men would be about of the mine in a morning; I suggested that when the men went in in the morning the driver should give him a ticket with a number on it, the same as that on his badge, and that suggestion was adopted; the first of these would give the ticket to the last shiftmen, and then the last shiftmen would bring it out with him and hang it up on the wall when he came out in the evening; the day deputy would go to the house where the tickets were hanging about 5 or half past, and if a ticket were missing he would go into that particular number; the underground manager's duties were as follows—first thing in the morning he would see the night and day deputies, examine the report-books and noted them, and keep the duplicate report, most of the day, his duties would take him inside the

W. E. ROGERS

all round that had fallen, and there would be some much higher up than the roof of the place where they were working, say get that had some timber would go to higher parts of the mine, it would take about a month or six weeks to work the rest of 2 shafts. The nearest point of the pillars in the area of 3 shafts was 20 or 30 yards from the travelling road, the position where the roof is middling, the upper part of the coal is called *eyes*, that is the upper layer between the coal and the sandstone, it is more coal than sandstone, the first fall occurred sometimes of blocks and sometimes of sandstone, blocks are the same as *eyes*, these were fairly pieces in the main ten or twelve years ago, before we got the ventilation shaft, we were then working on the pillars in the east of the largest haul, the face of the top of No. 1 right was just there, because there was no one working up there, the working was up to the date of this place, I saw it there myself some weeks before the disaster, the air would go into where there was working up into the east-though, and to the place above *Harwell* was working. No. 1 heading had been standing for six or eight months before it was far enough for the east-though from *Griff's* position here and *Bradford's* position there to go up to it.

To the *Chancellor*—I do not keep any record of the time that various things in the mine (what is it). I cannot tell you when the pillars in the 45 area gulf were taken out, but I could tell you from the way we worked and my observations, it depends what the customers have been accustomed to whether they prefer to use safety-lamps or free-lamps, I have seen men who were accustomed to using safety-lamps say that they preferred safety-lamps to free-lamps, I think the men at *Harwell* would prefer free-lamps, because they are accustomed to them, it depends on what sort of light they have as to which gives the better light, I do not think the employees care which kind of lamps the men use, there is a difference in the use of safety-lamps and a free-lamp, a safety-lamp would cost about 10s., and a free-lamp 1s., I suppose if safety-lamps were used the expense would fall on the Company, but the Company supplied the lamps or eighty safety-lamps which we had before the disaster, they had not been used; they were used up by Dr. Robertson, and I was surprised to see them, because we did not require them, I could not say whether free-lamps cause *blow* (blow) I would not like to say that there is no free-lamp in blocks; I have never inquired whether blocks had gas, I have never been worked by any person in continuity ever me to look out for blocks or gas after a fall, sometimes as soon as the people are taken and the roof falls; sometimes it takes a week or ten days, the second fall came about a week after the first, if there was any gas in the gulf it would be more dangerous at the second fall than at the first. I do not know that there was a fall on the day of the disaster, I took steps to examine between the first fall of the roof in the gulf and the second fall where there were no gas, I think the steps were that *Robertson* went and examined, I do not know how far *Robertson* went into the mine to look, I think he took three steps as part of his duty, just to know where they came, I have seen them at the mine face with a safety-lamp and a free-lamp going with the mine; I did not think it advisable to go in too far in No. 4 right on the night of the fall, because I felt a kind of a heat, that was just at the mouth of the 45-area gulf; I did not notice anything wrong with my lamp just there, the coal near to the mine is not protected in any way to keep people out, when Dr. Robertson spoke to me about the state of the roads (that they were ready) he told me that Mr. *Robertson*, the engineer, had spoken to him about them.

Made and sworn at the Court-house, Wellingborough.

This 3rd day of September, 1902, before me—

CHAS. C. ROBERTS, Coroner.

WM. ROGERS.

William Rogers, sworn, states (to the Coroner): I reside at Great Road, Wellingborough; I am the Mining Surveyor for the Mount Kirby Colliery; on the 24th July last I went to the Mount Kirby Colliery, I arrived there between 8 and 9 in the afternoon, I went into the mine with Mr. *Robertson*, the manager at the Mount Kirby Mine; we took a short time, we went into the travelling road to what they call No. 1 right, we found the body of Mr. *Robertson* in the travelling road, opposite the 25-area gulf, we put the body in a stretcher and took it out to the engine-house.

To Mr. *Robertson*—The face of the body had a very composed look, and I saw no signs of burning.

Made and sworn at the Court-house, Wellingborough.

on the 3rd day of September, 1902, before me—

CHAS. C. ROBERTS, Coroner.

W. L. JONES.

Report adjourned for further evidence till the 4th day of September, 1902, at the Court-house, Wellingborough, at 10 o'clock a.m.—CHAS. C. ROBERTS, Coroner. *Continued*, Wellingborough, 3rd September, 1902.

Report resumed, in possession of adjournment, at the Court-house, Wellingborough, on the 4th day of September, 1902, at 10 o'clock a.m.—CHAS. C. ROBERTS, Coroner.

William Rogers, sworn, states (to the Coroner): The pillars at the mouth of the 35-area gulf in No. 4 right were finished on the 26th July last, and on that date the men were withdrawn, I cannot say on what date the first fall took place, I did not hear of any coming of the earth previous to the fall, nor did I hear it, Mr. *Robertson* is my name; he is constantly up and down, there is no longer apparatus at the mine, there was no difficulty in my knowledge on the day of the disaster of rescuers getting ladders I heard of an *advisory* being carried to *Robertson* who wished to be a rescuer, I believe there was *Robertson* brought down by Mr. *Robertson*, the Chief Inspector of Mines, I believe it was brought, I do not know whether any person attempted to go to it.

To Mr. *Robertson*—I can not at all times be the safety of the mine without consulting Dr. *Robertson*, I always consult Dr. *Robertson* before I put down anything required at the mine, he makes suggestions to me as a rescuer.

25. Mr. Wade: I have always found Dr. Robertson perfectly willing to help me in anything for the safety of the mine, on the day of the disaster a number of telegrams arrived at the mine from South Wales, where people brought things that were, and there were a number of letters there that evening. I saw that one of the telegrams only were allowed into the mine, even so I thought were capital news, at the time of the disaster I was in Wellingborg, and it was at a period of the day when all the men would be in the mine.

26. Mr. Lysaght: To the best of my memory the men withdrawn from the pit on the 20th July were Henry Phillips, Williams, Thomas Muir, and Robert Quinn. I believe Williams and Phillips were the last two who were there; all these men are alive. I cannot say of my own knowledge whether Dr. Robertson has personally inspected the Mount Kembla Colliery, but for gas, at any rate.

27. Mr. Lysaght: The river is my superior officer.

28. Mr. Lysaght: To the best of my memory the agent for the Mount Kembla Colliery, I believe there was agent, I have never heard who the agent is, I have never inquired, if I wanted to know whether I could incur certain expenditure I would communicate first of all with Dr. Robertson, and then to the Directors. I do not know that any member of the Coal Mines Regulation Act defines what an agent is, Dr. Robertson is not my only superior officer at the mine, there are the Directors, Dr. Robertson has attended at the mine on an average of about once a month for the last five years. I say about that, sometimes he would go into the mine, and always, he would go into the mine perhaps once every six months, before the disaster I cannot say where it was that Dr. Robertson was last in the mine; I think he was in No. 1 section once this year, I cannot tell you when that was, Dr. Robertson has never given me directions to enter the mine because they are daily, Dr. Robertson has never pointed out to me any danger from the dusty condition of the mine, he has never referred to it in any way, I never told Dr. Robertson of the result of the experiments with the sample of coal dust, I do not remember having any conversation with Dr. Robertson after I have done so.

29. Mr. Lysaght: Dr. Robertson is, I believe, Managing Director of the Company.

30. Mr. Evans Jones: I remember Mr. Lysaght pointing out certain documents to me yesterday in the examination book (Exhibit C); these documents are supplied in the book. I now produce "Verification Book" put in and marked Exhibit E, the reason that the documents appear in the first book is that there was a man in it for certain particulars that were required, and I gave instructions that they were to be supplied on certain forms, and then the old book (Exhibit C) to be returned to, the two books together make a complete record.

31. Mr. Lysaght: I saw Mr. Warburton this morning, he did not furnish that explanation to me, I thought of it myself.

32. Mr. Owens: Sometimes there are boys employed in a certain part of the mine who are at other times employed in other parts of the mine.

Made and sworn at the Court-house, Wellingborg,
on the 24th day of September, 1906, before me—

WM. ROGERS

Case C. Kembla, Censor

Jonathan May, sworn, states: I reside at Wellingborg, I am a mining engineer, at present my position is lecturer on mining and geology under the Education Department at Wellingborg, on the 21st July last I went to the Mount Kembla Colliery. I got there about a quarter to four in the afternoon, I went into the mine directly I got there (within five minutes), I went into the shaft section by the travelling road, Mr. Roberts and several men were with me, we went to the intersection of the No. 6 right rope road, where there was a heavy lamp hanging, I have marked the place X 1 on the plan, when passing the No. 2 right we found the air shaft hole, but at the place where I have marked the dot was possible—that is, possible after an explosion, the rest of the travelling road towards the shaft was broken down in some places, and the timber was down (the props and cross-props); I saw nothing else particular—nothing which I would call extraordinary, just the usual conditions; where I have marked there were some fifteen men collected, some engaged in the air, and several men were there, and they were getting the bodies in trucks to take them out of the mine, we passed that mark (X 1) a distance of thirty or forty rods down No. 6 right, and there we took a right, and went down the drift, from there, while Mr. Roberts was speaking to some of the men I spoke to John Frost, junior, and the deputy to get give me an outline of the position; they told me something, having found that the shaft was too strong down the No. 6 right rope road, and thinking that by going down that road we would very soon be facing the return air, I at once saw the force of those suggestions that we should go out of the mine over the mountain and in at the daylight tunnel, because the ventilation was very much better that way, and we could go in with the air, we went out of the mine and met Mr. McCulloch coming in; I told Mr. McCulloch that I had told Frost at the point marked on the plan, and had suggested to Frost not to allow any men to go down No. 6 right rope road, and in answer getting the bodies out, we had some ladders with us in steps then and brought them out in the shaft (I) we came to a fall, and then we went into the travelling road, carrying the bodies, and right out of the mine, the following day I went to the mine, but I did not go in, I offered my services to Dr. Robertson, but I did not go in, on the 26th of August I made an inspection of the mine with Mr. Roberts, Mr. Edgar, Mr. Mayne, Mr. Morgan, we went in to examine No. 1 right section, we went to by the travelling road and followed that road to where I think there is a big wheel, I have drawn the circle we took on the plan, from there we went to the point which I have marked on the plan X 2, we had a look at that point and there, we did not find any fire-damp at that point, I had no plan with me, and I pointed it was so on my own without one; after that we went down to the 25-cm. level, we just examined the signs of that level, we found no gas, I would not call it a thorough examination, from that point we returned to the point marked X 3 on the plan, a man and his son had just started a play; I heard a slip about there; a man was tipped over to one side, and was nearly an evidence of that; from the point marked X 2 we went to the back heading of the top of No. 1 main, and went on road. I think there was another heading up there known as that shows on the plan; I may be wrong, we found fire damp there, it was a very thin stream about one quarter per cent; I had a hydrogen lamp, from that point I think we had descended my inspection, it may be called an inspection, coming out we examined one of the roads, I think the

at the same time, on the side next to No. 1 travelling road, it was one of the three gash to the left of No. 1 right coming out, we found some gas there, I do not know what sort of gas it was, that was on the gash, we went right up to the edge, our lights were very faintly being extinguished by the gas, and we withdrew, we walked straight along the travelling road to the surface, I regarded our examination with a bit of a very different; the condition of the travelling road was not so bad as that of the main haulage road, the main haulage road was very much broken up with falls, as went over the hills going in, I arrived at the same time from my own corner of the mine that the disaster had been caused by an explosion of fire damp, I thought from my examination that the conditions were such as to point to an explosion, I would not attempt to fix any particular spot where it was likely to have happened, all the conditions were at three or four places, for instance, the four gash, were particularly the 15 and 15-ene gash, another place where the conditions were on the spot marked on the plan X 1, the conditions at that point were that there were of extreme length without a cut-through, I should say there were about a hundred yards in length, continuous like that would be liable to lead to an explosion, for the following reason: that in the event of gas getting a blow at the face, a very small quantity of additional gas would lead to an explosion, because there could be 1 per cent of fire damp there, and that could not be detected by the method of examination, 1 per cent of gas would be dangerous under these conditions, with a blow and shot, considering that the beds were driven that distance without a cut-through, the ventilation of the mine would be very liable to fluctuate, an inability to fluctuate would be from the following reason: that having a blow in the roadway, an inability to fluctuate from 15 and 15-ene, the gas would be blowing on the mouth of the tunnel (the additional cutting even dips the quantity of air circulating would perhaps vary by thousands of feet, this particular condition is a very serious one, the conditions were serious at the 15-ene and 15-ene gash.

Work continued by Mr. Bruce Smith: I was an Englishman and have been out here for about fifteen years, principally in the colliery, I have had about forty years of previous experience in mining, I have worked in some of the best coal fields in the world, I have worked in every official capacity in the mine, I have worked in a mine to a mine and get out, I worked in a mine for about three years, I was 17 years of age when I began, after being a miner three years I became a deputy or foreman, that was at the South Durham Colliery, I was a deputy for about four years, then I became a foreman and supervisor and then manager, I was a deputy for about four years, after the four years I did the surveying of the colliery and kept the plans of the colliery, I did that for about six years, and then came out here, I began to work in a mine at the age of 18 years, from 17 to 20 I was getting out, besides that I was appointed as a mining engineer before I came out here, I was engaged in the position of under-manager at the Westfield Colliery, Durham, when I came out here I was engaged as a manager at the Durham Mine, New Zealand, I was there for six or seven months, after that I came to the neighbourhood of Broken Hill, I was working as a shift boss in a mine, I had fifteen months there at several different mines, I was working at the Broken Hill mine, after that I took charge of the Maitland Colliery, as manager, I occupied the position for about three years, after the mine was closed, that being the way to about ten years ago, to the last the position at the Maitland Colliery after I left—no abandoned it, I then went out to manage a mine in Victoria for the same company, I remained there for about seven months, and then I spent a year at Broken Hill, then I became a manager, and have been in that position ever since, with all the practical and theoretical experience that is the best of the disaster, I can give you with all the knowledge of the disaster, that is the first thing to mention where the disaster took place, the direction of the air is frequently shown on the map by arrows, I look at the lower gash on the plan from the southeast corner of that gash the air goes south about 100 yards, next about 20 yards, north about 100 yards on to the edge of the gash, from the edge of that gash the air is taken to the fire, and to the fire of where the explosion took place, that is not good mining practice, that is just an illustration of what I mean, that one of the dangerous conditions, that does not enable me to say where the disaster took place, that does not enable me to determine what was the cause of the disaster, I dare not enable me to determine what caused the disaster or where it took place, driving the horse such a great distance with horses all been on machinery after looking at the ventilation, I would go and examine the condition of the gash, I would want to know where every door in the pit was, I would want to know if there were any stops down in the current of air, I would want to know the exact condition of all the roads down before the accident, in addition I would require to know the condition of the stoppings as they existed before the accident, I would want to know whether the stoppings were kind of small coal, that I would want the quantity of air in each split, I would require the quantity of air not getting, but the quantity of air that was flowing the last time that split, all that is to find out the condition of the air before the explosion, I would want to know all about the condition of doors, stoppings, ventilation, horses, stoppings, horses stoppings and horse stoppings, and stoppings, I understood the plan of a mine, if it is correctly recorded it will show all the things I have mentioned, I should mention what caused the stoppings to the stoppings at what time he entered such place before the disaster, if the deputy did not, I would want to know the exact time he entered such place, I should require the exact time he entered such place, the time he entered such place, I would want to know whether there had been any sudden rise in the temperature outside the mine, I would want to know what I would require in regard to ventilation, if I were appointed a Royal Commission I would require to know every man's name who was in the mine when he was working, where he was found, and whether he was hurt or not, which of the men got out of the mine, and by what way they got out of the mine, I would want all the officials of the mine, I should require every workman who worked, between 15 and 15-ene, I would want to know the condition of a practical miner and a manager to help me with the Commission, where all these conditions were supplied with I would not be able to arrive at a conclusion which would be of any value, I have formed a conclusion as to the cause of this disaster, I have formed a conclusion as to where it took place, in forming my conclusion I have not obtained the whole of the facts I have mentioned, I formed my conclusion, what I had been in the mine, I saw a plan at the mine, apart from the map I do not know how the conditions were in the mine, the cause, in my opinion, of the disaster was an explosion of fire damp, I found fire damp at the top of No. 1 right at the back heading, that is the only place I found fire damp, I found it once in two years, I have formed the conclusion that the disaster occurred between No. 1

right and No. 6 shaft loading, I think the disaster did not occur on any part of the map where I have marked red crosses, a blow-out shot with 1 per cent. of gas could produce an explosion, and I think that there had been no blow-out shot on the day of the disaster. I would say that it was not caused by a blow-out shot; the fire-damp which I think caused the disaster could be ignited with a naked light; a fall of very hard stone has been suspected of lighting gas before today, it would not ignite dust alone; it would require it to 25 per cent. of gas to produce the explosion; I will give you half a dozen authorities to show that a fall of very hard stone has been suspected of igniting gas, without the intervention of any light, I do not at present commit myself to that view, it is an authority; I will bring you the book "Blaize" to ascertain, I know Douglas an engineering, the difference between fire-damp and fire-damp is that fire-damp extinguishes you by its own blow-out; gas will burn; fire-damp will burn; you light, with black-damp it goes out, in one case you have no light, I can tell the direction in which the slip I have mentioned was blown, the way was blown in the direction of the arrow marked on the plan, I observed the direction in which things had been blown in No. 1 shaft, I would probably take a fortnight to mention all the things I saw.

Questioned by Mr. White: I have seen a plan like that now in the Court—a copy of it, I saw it in Mr. Lynght's office, that was a week ago, I saw, I think—yes, now, within the last few days I have not been at Mr. Lynght's office more than twice, I did not discuss the question with Mr. Lynght as to the cause of the disaster; I did not believe I was going to be called, I did not tell Mr. Lynght the conclusions I had come to about the matter, nor before, or Maguire, or Riggs, I never told anybody of the party who were with me with me on the 25th August, I say that voluntarily; I did not discuss the question with them in any shape or form, that is the solemn truth, none of those men discussed with me the cause of the disaster at any time; Mr. Biddle asked me to go into the mine, I did not know I was to go to not try to ascertain the cause of the disaster, all I knew was that I was invited to go into the mine; I did not know, on August the 25th, when I arrived at the mine that I was wanted to go into the mine and try and discover the cause of the disaster, I do not know now why Biddle asked me to go to the mine, I was very glad to go into the mine to see the results of an explosion and the effects, I wanted myself to try and ascertain the cause, I am a man of very large experience, I do not admit that this case baffled me, I cannot go much aware to the locality of the disaster that that it was in the mine; there are half a dozen places where you have started, there are twenty places more; I have been in the mine since the cause of the mine, a thousand more, I examined for some time on the 25th, I examined in places where I thought it likely that fire-damp might accumulate; I had a hydrogen flame, a hydrogen lamp which had a quarter per cent. of gas, that is ten times better than the ordinary lamp used for ascertaining, I did not see fire-damp found anywhere except in the one place, the battery was not down up there, I took the lamp with me to show me to not not; that was an ordinary safety-lamp, I did not discuss the question of the disaster with the party on the day I was in, we talked not when the disaster; the men did not discuss the cause of the disaster with me at all, I was not with them, we were all together, I do not think we were and examined the various things together, I do not remember at present what the other men were there for; I do not remember whether they were there to discover the cause or not; I attribute my ineffective examination to the want of a plan and the want of time, the plan I saw was the colliery plan, I was not cut short in my examination of the plan; I had a long examination of the plan on the night of the 25th, I had a long inspection of No. 1 station on the plan; I could not see the direction of the ventilation in two minutes, I did not come in back of the doors, where I got to the mine on the 25th I did not know all about the disaster, I heard that there was a travelling road and a rope road, I went into the mine on the 25th about half past 10 and came out about 10 o'clock, I think it was 11 o'clock when we reached the mine when I came to Chas. of it, I struck out that there had been three moving down No. 1 main rope road and going up No. 1 main rope road; I could not tell you where the faces directed, I found evidence of faces in different directions in more places than one; I took no note of what I saw; I can give you no idea how many places I saw evidence of faces in different directions, that is one of the very first things that I saw; I do not know any more of it at all; I have the one of the most crucial tests to apply after an explosion, I do not know the Coal Mines Act very well, I know as general provisions, it is against the spirit of the Coal Mines Regulation Act to have a head over 100 yards in length without a cut through, I say that it is against the spirit of the Act to drive a head for more than 50 yards, more with branching up, without a cut through, it was against the spirit of the Act, but not against the words, it is a dangerous thing to have horses for 70 or 80 yards with only an apology of a draw at the end, it was against the spirit of the Act although the words are explicit in favour of it, the long horse I speak of had been worked before the cut-through had been put in, those three horses that I have mentioned were 50 yards long had been idle for about three weeks, I should think, I would expect to find naked lights on a head that had not been worked for over three months, I could not say that I would expect to find any more there in those three heads on the 25th July, I did not see any signs of explosion in those three heads; I mentioned those three heads because the conditions under which those three heads were driven are now in existence at the mine, I have been at New Remble Mine twice—on the 25th July and 28th August; the sun shining on the 25th night would tend to reduce the temperature at that point with the temperature at the bottom shaft, there are numbers of men who are worked by means of a lantern, if there was a long gallery put up in front of the tunnel that would not affect the dangerous conditions I have mentioned, there are additional means of eliminating the danger while the shaft contains three, if you should the furnace and put on a fan, then you will remove the danger, I cannot say positively whether the horses up at the heading at the top of No. 1 was up or damaged on the 25th, when we were there, I think one of the men mentioned something about the horses, I know that whether the horses are up or down is most important after an explosion, I would be sure to look at it, and if it had been damaged I would have worked it, the battery was up, but it might have been slightly damaged at the bottom of one corner, you might say that battery was not accurate.

Made out notes at the Capebreton Colliery, }
the 25th day of September, 1909, before me, }
JUN, MAY.
Owen, C. Brown, Coroner.

The legend is adjourned, for further evidence, till the 24th day of September, 1902, at the Court-house, Wallasing, at 10 o'clock a.m.—*Chas. C. Bennett, Counsel.* Court-house, Wallasing, 24th September, 1902.

Legend resumed, in presence of adjournment, at the Court-house, Wallasing, on the 24th day of September, 1902, at 12 o'clock a.m.—*Chas. C. Bennett, Counsel.*

Thomas Hunter White, testified, stating (to Mr. Bruce Smith): I have seen Pinnell's body since my last examination; from what I have seen of him I wish now to say that the injuries which he received were due to burning by flame, and not by steam; I was not sure the other day, but I am now.

To Mr. White: I am speaking of all Pinnell's injuries; he had extensive blistering, and those blisters were due to burns; his legs were very much burnt; it is possible to take off the hair of a man's head with a flame; I should think that it was a severe flame that caused the injuries to the body; a severe flame would take all the hair off would probably leave the scalp; as a matter of fact her scalp was burnt, his hair was not burnt right off.

To the Doctor: I examined the bodies of the Miners and Nelson recently to say that poisoning by carbon monoxide was the cause of death.

Made and sworn, at the Court-house, Wallasing, }

T. F. WARD.

on the 24th day of September, 1902, before me, }

Chas. C. Bennett, Counsel.

William Rogers, testified, stating (to the Doctor): I say now that the plates were taken out of the 25-acre gold and the man withdrawn, and the place closed on the 15th July last.

Made and sworn, at the Court-house, Wallasing, }

W. M. ROGERS.

on the 24th day of September, 1902, before me, }

Chas. C. Bennett, Counsel.

Inspector Henry Forchert, sworn, stated: I reside at Mount Kemble; I am a mining surveyor.

To the Doctor: It is one of my duties as mining surveyor to take the ventilation of the mine; I take the ventilation every month regularly somewhere about the same day; I take that ventilation necessarily and accurately and in compliance with the Act; I record the result of my examination in a book which is kept at the mine for that purpose, the Act says that 100 cubic feet of air must be supplied for each man, boy, and horse; the books (Exhibit G and H) are the books in which I make the records, the figures on the back of the page in the book (Exhibit G) are the details of the work on the book (Exhibit H); I put the men and boys together, but the Inspector disagreed that the boys should be separated from the men and I did as he wished; that explains the difference in the entries, the first report made by me in the book (Exhibit G) is the 24th August, 1902; there may be blank pages in the book (Exhibit G) but the reason was that when the book was made the rubbing of red ink the method of rubbing the ventilation, and I started the book up so that it would not, and we can trace the ventilation month by month.

To the Foreman: I did not leave the book (Exhibit G) from the time I commenced it and make entries in the book (Exhibit H); the last entry in the book (Exhibit H) is 24th July, 1902, and the first entry in the book (Exhibit G) is 24th August, 1902.

To a Juror: A very hot day outside would make a little difference, but not much; the temperature in the mine today in the furnace does not vary very much; it is always about 60; I always found the air in excess of the 100 cubic feet for each man, boy, and horse; I have tried the calculation in between the monthly examinations, and never found it very very much, and there was always the excess.

To Mr. White: I have been trained with the Government Inspector; I have seen Mr. Ransom measure the air; I have compared his readings with many; he could always get more air than I could; perhaps because he had a more open face, consequently, I have seen Mr. Ransom, I think, put his initials in the book (Exhibit H); Mr. Ransom's card is now also in that book; the measurements in the book had been taken before the inspection looked at the book; the measurements were made on their own account, at the mouth of the tunnel is now, there is just the same wall; the men the doctor, he had a red book over the mouth of the tunnel; the effect of that was to shut off the air from the mouth of the tunnel, the road extended for a distance of about 20 yards; I know where the screen was now; I know where the upper air; the road is also over the top; the road length of the road is about 40 yards.

To the Foreman: The inspectors installed the book merely to show they had seen it.

To a Juror: The shed is meant to be a protection to the engine as well as to seal the air about the mouth of the tunnel; I have never gone into the question as to whether the heat from the boiler would or would not produce as much heat about the tunnel mouth as the roof was intended to prevent; the boiler is outside the line of the tunnel.

To a Juror: I have only been once in with Mr. Ransom; I never saw him take the air; I cannot say whether he has taken the air or not.

Made and sworn, at the Court-house, Wallasing, }

S. H. WARBURTON.

on the 24th day of September, 1902, before me, }

Chas. C. Bennett, Counsel.

To Mr. White:—*Jessie May*, testified, stating: Since August the 24th I have been to Mr. Loughlin's office either once or twice; those are the only occasions on which I have spoken to him; he has not been in my house; most certainly I had no discussion with Mr. Loughlin between the 24th July and the 24th August; between these dates I spoke to him, but not about the disaster; he made some reference

in little pockets behind the daps (It is possible that with a pick or a blow you may come on such a pocket) that is very unusual, it is quite possible that a mass which hitherto has had a good name for being 100 feet from gas may be caused by an opening on a certain pocket of gas like that, the best precaution is to prevent that in the event of, to have the ventilation up to date, and in case the remaining current shall not fluctuate, the stream over the main in the gas may be of assistance. I believe it is reasonable to think that the gas is not so bad as it is said to be, a large percentage of gas is not so bad as it is said to be, there is no coal or coal dust in the gas, if the roof at the gas were to fall in these conditions, the dust coming out of the gas is very quantity, all dust (combustible dust) is more or less referred to the safety of the mine, the principle may be to keep the air circulating. I believe an opportunity of forming an opinion whether the Kanabla mine is a wet or a dry mine, I would not venture to say that coal dust is combustible with a naked light without any gas, one percent of gas in a dry and dusty mine increases the liability to explosion with a mixture of fire damp and coal dust, but not with a naked light, with a naked lamp, a naked light would be extinguished by a dash of air and coal-dust, with a still atmosphere of 90 per cent of fire-damp and a shot would produce the most dangerous conditions—that would produce an explosion in one part with coal dust, a layer of dust under these conditions which would simply block the streaming or trapping out and cause not long a shot from a gun barrel, there is not the same danger in firing a shot which does its duty, although there is also danger, supposing that the disaster occurred at some point at No. 3 right, it could do a lot of the damage that was done in the mine without having been increased in any way or any other part of the mine (I saw a lamp held near a certain point which I would take as the point of origin, and a number of holes not far away and there, and there another hole barrel in another point at a distance from the point of origin, I would expect fire-damp at which fire-damp explodes is about 1200, perhaps, a mixture of CO₂ and air in the proportion of 50 to 1, then, then the steam would condense, leaving CO₂ and nitrogen, if the conditions are not such as you hear, it will last in half an hour, it is a very strong poison, black-damp is a mixture of CO₂ and nitrogen—60 per cent of nitrogen and 10 per cent of CO₂, about 10 per cent of which black damp will extinguish light, and the oxygen content, certain gases, these gases are CO₂ and CO, of course it creates these gases in very small quantities, the mixture of CO₂ in a mine may be good to day and very dangerous tomorrow, conditions might arise which a man would not anticipate, in all mines one has to be very careful for keeping up a continuous current of air, and especially in the case of Kanabla, I say Kanabla because the quantity of air circulating in the mine depends upon the difference of atmospheric pressure would reduce the quantity of air circulating.

To Mr. Wade, I will qualify the statement "that fire damp should be anticipated in every mine"; I have known of mines in England which have been worked for hundreds of years in which fire damp has never been found.

To Mr. Osborne. What I said to Mr. Bryant when he made the reference to the disaster was, "not to mention the disaster because Mr. Wade had said he intended to place me to the disaster but as he would be sure to ask me what had taken place", carbon monoxide follows an explosion in the fire damp explosion monoxide then follows an explosion of coal dust, so that in this disaster it does not matter whether the carbon monoxide, of which the doctors have spoken, was produced by an explosion of fire damp or an explosion of coal dust.

Made well known, at the Courthouse, Wellington,

on 6th day of September, 1902 before me—

CHAS. O. BENTLEY, Coroner.

JUN. MAY

William Brown, sworn, states: I am a miner, I reside at Kanabla Heights, I have been employed at the Kanabla mine with the exception of eight or nine months for about sixteen years, up to the time of the disaster, I was there when Mr. Russell was manager, Mr. Brown who is now manager, was then the under-manager, when Mr. Russell was manager there and while I was working in the engine house with James Purcell as a mate, I can fix the date whatever, I went as a mate in the engine house shift; I had a lantern on my hip, when I walked in just close on the fire the fire was under the foot on fire, it was here here gas, there was a steam rolled out and rolled round and round between the 10 and 12 yards out of the lamp and then back again; I dropped down to save myself from getting burnt, the flames went out of itself, after that I left my place and went and told the Foreman, David Dixon, I told David Dixon that the road-dusts in the shaft, I told Dixon what had happened and went back with Dixon to the place I had been working at, Dixon examined the place, when I told him, he said that he had examined the place that morning, and it was all right, when I went back with him he examined the place and told me to go home and the place would be finished up, I returned to work after the following morning, I went to the same place, I found the place was finished up (I had been away the work on in that place for a week or more, I have continued to work as in the same place), I continued to be employed referred to by me as above in what, the shaft had been (on the left of it), that this is not the place now, it is a long distance below in what it was then; there was no surface rope then, more than I have not seen anything like this since or that ever seen.

Cross-examined by Mr. Wade. I have no idea as to the date whatever, it is long while ago; Mr. Reid (who must have been gone some six weeks or eight years, I could not say, I have heard of the new Coal Mines Act, in the days I am speaking of the location was not kept up close, I know that has to be done now, at the time I have mentioned I was working at two workings in the under coal, I cannot tell you how far the place was worked up before it was shifted further up. The coal was all broken through the under heating.

To the *Deputy*: It was after the execution of the present remaining skulls.

To the *Witness*: I have worked in No. 1 section, but not for two or three years; it is a long while ago, but I cannot say where it was, when I was working in No. 1 section I never saw any fire-dump to speak of, you would perhaps meet a Miner at home; I have not worked in the fourth right that I am aware of.

To the *Mr. Under*: As to the part of No. 1 right where I saw blowers there would be some water; the water would come out of the face, I go by the case I heard when I say it was blowers, I have said to the deputy that there was a lot of gas, that has not occurred within the last twelve months, it is now two years ago; I never had any light dug up like I had on the occasion I have mentioned. I would not be sure of the name of the deputy I told about the blowers I had found in No. 1; I am certain I told him, I think it was William Nelson.

To the *Mr. Brown Smith*: It did not go off in a flame in No. 1 section, it just burst like a mortar; by the big eye I got my hat burst a bit, after I was merged up that occasion safety lamps were not used, I work on the same way.

To the *Witness*: I have not heard of anyone having been buried in the last two years at Mount Kemble, I am quite sure of that.

Made and sworn at the Court house, Wellington }
 this 5th day of September, 1901, before me, — }
 CHAS. C. BENTLEY, Coroner.

WILLIAM MORAN,

The inquest is adjourned till the 5th day of September, 1901, at a quarter to 9 o'clock a.m., at the Court house, Wellington.—CHAS. C. BENTLEY, Coroner. Court-house, Wellington, 5th September, 1901.

Inquest resumed, in presence of adjournment, on the 5th day of September, 1901, at a quarter to 9 o'clock a.m., at the Court house, Wellington.—CHAS. C. BENTLEY, Coroner.

Inquest adjourned for further evidence, till the 7th day of September, 1901, at 11.30 o'clock a.m., at the Court house, Wellington.—CHAS. C. BENTLEY, Coroner. Court-house, Wellington, 6th September, 1901.

Inquest resumed in pursuance of adjournment, at the Court-house, Wellington, on the 9th day of September, 1901, at 11.30 o'clock a.m.—CHAS. C. BENTLEY, Coroner.

To the *Mr. Under*—*Justice May*, recalled, writes: I produce the telegram (English) put in and sented (Hobart E.), which I received from Mr. Harber; I have no inquiries on reading that was made and made, at the Court-house, Wellington (this) } JON. MAY.
 this 9th day of September, 1901, before me, — }
 CHAS. C. BENTLEY, Coroner.

Harro Street Smith, sworn, states: I am a stoker-segment of police, stationed at Wellington, on the 11th July had in company with Messrs. Nelson, Cook, and Johnson, I proceeded to the Mount Kemble Colliery, and arrived there about 9.15 p.m. — on arrival I saw the body of a man, named Jacob Nelson, lying on the blacksmith's forge, to which it had been removed, the machinery and engine outside the pit were wheeled, amongst the debris I found the right leg of a boy, it was torn off at the knee, and was subsequently identified as that of a boy named Alexander Morrison, I afterwards, with several others, proceeded into the mine, we went into the shaft district, on the No. 6 shaft rope road we found a number of men lying dead, amongst which were the two Maori men, Henry and William, there were also several others there in an unconscious condition, with others who were in them at the time, I started in naming those who were close to the outside of the mine, and afterwards, with two men named Dunn and Williamson, we cleared the tracks off the No. 6 shaft rope road and took three trucks in that road; we gathered up three bodies in all into the three trucks; I found the bodies of Henry and William Morrison lying on the right hand side of the road side by side, we brought the bodies up to No. 6 shaft, and then with Mr. Morrison and J. C. Jones and others, I proceeded along the Engine road, as No. 6 shaft we found two more bodies, and on the way up the main heading road, near No. 2, we found the bodies of the both and Edward (English), we put the bodies with the others, and arriving at No. 6 shaft we put the three bodies in the trucks; the state of the bodies were then carried out into the main heading road and thence out of the mine; Mr. J. C. Jones and myself carried the last one out, all the bodies were taken to the undertaker's shop, which was used as a morgue, and three Maori men's bodies were carried on the following day by the car.

To the *Witness*: There was a fire in the Central Colliery on the 11th July, 1901; there was a fire in the South Bath Colliery on the 7th June this year, the fire in the Central Colliery was about 200 yards from a side in the mine, at the face; it was within a foot or 18 inches of the fire; that was a most unusual place to have a fire, the fire had been on the top of a lot of coal that had not been burnt down. I did not feel out how that fire originated, the fire in the South Bath Colliery was in a lamp cable about 150 yards from the entrance, inside the mine; it was between 1 and 2 o'clock in the day, just after the men had knocked off work; in that mine there was an engine hoist and an open railway platform.

To the *Mr. Under*: None of the bodies—there were mistakes—which I brought out of No. 6 shaft, eight dead men of being burnt; I saw some bodies brought out in the morgue by others, and named three conditions, some of them appeared to me to have been burnt or smothered; I judge that the boy I did not name Jacob Nelson's wife, I cannot say anything about him; Arthur and one were burnt, I judged that by their hair being singed; Brown was burnt; he was a boy, both hair was singed, Thomas Nelson's

law

half was stayed. Walter and Thomas Moore (father and son) appeared to be stayed also; Keable Stafford was another one, he later appeared to be stayed, the other was pulled off Fawcett's track and sent; that is all I can remember the names of, I cannot say the number of men that were stayed, there may have been a few others than those I have mentioned, I did not know myself where the men were pulled up, the policemen I served on you was named as being by the Carvery, and I led up to the investigation of Mr. Berry.

To Mr. White: I filled up my statement on the same way for other witnesses. I would like at the request of Mr. Langley, I saw several men whose signs appeared to be pulled on the parts of the body that were bare; there had no clothes at all on with the exception of one hat on the right foot when he was brought into the surgery; I did not notice any man with just a hat and a piece of clothing under the hat.

To the Doctor: I saw no indications at the mine, outside the opening of the holes that I have spoken of on the night of the first July that would lead me to believe there had been a fire in the mine, yesterday, on the night, Inspector Watson posted out to me a place which he said had been burned, it had on electric light, and he turned it on so that the mine was lit, and drove the situation of the way to it, and said he had no doubt that it was burned with a flame, that was the only place which I observed any indication of flame, I do not know that I could locate the spot pointed out by Mr. Watson on a plan; I saw no timber charred.

To a Jailer: I was at the mine when Walter Moore and his son were brought out, their hair appeared to be singed, and the shirt pulled from their backs.

Made and sworn, at the Court-house, Wellingborough,

the 9th day of September, 1900, before me, —

HARRIS S. BAXES.

Chas. C. Bennett, Coroner

David Fisher, sworn, states: I reside at Bells, I am Mining General Secretary, I have had off and on about twenty five years' experience in mining; I went to the Mount Keable Colliery on the 31st July last, we got there rather before 4 o'clock in the afternoon, on arrival there, on discovering what had happened, I changed my clothes and got a safety-lamp as quick as possible and in company with Mr. Daniel Johnston, Manager of the Metropolitan Mine, Mr. Johnson, Manager of Bells Mine, and several others, made up a party and went into the mine as once through the working road, we went into the No. 1 district by the No. 1 travelling road, we were the first who had gone down that district after the disaster, in going down No. 1 travelling road we met William Broadhead, he was coming down from working level, making towards the outside, after inquiring where he had come from we asked him had he seen any other men on the way, he said, "Yes, there were two men lying on the road there again"; Mr. Broadhead and myself then got every time the others in order to reach those people at the earliest moment; the first we met was William Nelson, he was alone there, he was lying with his head towards the outside, up against the right hand rib, on the road and my shoulder endeavouring to keep his alive by keeping his lungs open, the other members of the party went on, and Nelson, I believe, died in one hour, his limbs and his body were quite stiff when we got to him first; after he died his leg was quite long, we left the other members of the party with him, and Mr. Broadhead and myself again went ahead and made another Mr. Johnston, he was contrary to the mine state of collapse as Mr. Nelson was when we found him, he was about 10 or 12 yards on the other side of Nelson, with his head lying along, we used the same efforts to keep him as we had used on Mr. Nelson, in order to endeavour to keep him alive, he then was lying with his arms stiff and his back firmly clamped, in the fact his back had evidently fallen back into his throat, and I pushed them out with a knife, in consequence of the condition in getting somewhat thick and hot about that part we got Mr. Broadhead out towards the outside about for about 80 yards and then went out for a considerable party, which afterwards came in and took him out; at that time the lungs of the party were burning very hot, in consequence of the accumulation of hot and smoke; they were in a very damp, and were not in very good order; the primary cause of the lungs burning badly was the oil and the waste which were coming in, and the lamps still burning as we went out, after having the lungs attended to I, in company with a number of others, went into the shaft district, where I was told there was a number of men in need of assistance, we moved on the shaft first, and found that a number of bodies had been collected there, and on company with a number of others I did what was possible to have the bodies taken out, still sent parties had been down on that district to assist the living people before I got down there, I injured my leg when I went in first, and returned about 12 o'clock that night, I did what was possible to assist the people at the mine, but I made no statement that night, all the live people had been got before I returned, as the 31st August (Sunday) I was out of a party, who made an inspection of the mine, the members of the party were Jonathan Hill, James Maynard, Thomas Maynard, Charles Rogers, James Nelson and myself. Inspector Watson, John Morrison, Adam Frost, James, and William Berry accompanied us into the mine, we made an inspection of No. 1 district only, we went right down the main heading and in that section, our inspection was limited practically to the mine which I have referred to on the plan by a blue line.

Cross examined by Mr. Bruce Smith: What was your hope with your evidence of very great force in the main heading road section, I might say that I did not arrive at any definite conclusion as to where the force originated, all evidence of force from the telephone cables appeared to be contrary; the indications of force on the cables were rather weak, I am aware of the theory that when an explosion of coal dust takes place it is followed by a series of explosions of dust, such a state of things would cause confusion in arriving at a conclusion as to the direction of force, a series of explosions from any cause would have the effect that there might possibly be a series of explosions of gas, it could be possible for gas to be driven from different directions by some force and so produce a series of explosions; I found things on level of the 35th level as such a state that I could not draw a conclusion as to the origin of the force, there was evidence of force being given in an upward direction from the very top of the 35th level, there was evidence of force in the upward heading road, that is about two yards from where the 35th level was worked (that is the upward heading road), that is about two yards from the main heading, we found there evidence of force in the heading, there were charred timbers, I mentioned the timber, and to the best of my belief it had been moved through fire, in the mine, and, strictly, the charred could not be determined as the whole of the passage because of the fact that had been found to be there, but the charred was not confined to one prop, the timber had

charred

last time I saw gas in the mine, I always adopted the practice of lighting the gas, because I thought it was safer than letting it go into the air. I was working in the mine on the 21st July, I was working on the second right in the No. 1 district. I did not meet any gas at all where I was working that day. I did not light any that day. I know the fourth right pillars in that district. I was working on them before going into the Mark-dump in that, I was one of those who drew the last props out of them. I did not go as well a party to inspect the mine since the disaster, there was black damp in the pillars when we drew the props in No. 4 right, sometimes I went to hear the gas, and sometimes I used to see it when looking to see what the dust had done.

Cross-examined by Mr. Bruce Smith: When I thought it was dangerous I used to asphyxiate and not otherwise, the last place I was working in, on the fourth right, the black-damp was so bad that I had to send for the fire men, and I did not get in for three days, that was about three weeks before the disaster. I discovered the Mark-dump because I could not get my light anywhere near the floor. I could only get it within 2 feet of the floor. I had to go out every now and then to get some fresh air, after the three days I was brought further out, where it was better to work, but it was bad enough there, Drangy was the fireman I sent for.

Cross-examined by Mr. Wade: I was working in the fourth right pillar about three weeks before the disaster, I had been in the fourth right pillars on other occasions before the last one, I had been there on one occasion, I do not know how often I had been there, because I do not want to, I am not paid for the Thomas Mine who my mate is the fourth right pillar in the last one; I had never worked in the fourth right pillar before the last one with Mate.

Made and sworn, at the Court-house, Wellington, this 5th day of September, 1902, before me:—

CHAS. C. ROBERTS, Coroner.

M. QUINN.

Interrogatory adjourned, for further evidence, till the 10th day of September, 1902, at 10 o'clock a.m., at the Court-house, Wellington.—CHAS. C. ROBERTS, Coroner, Court-house, Wellington, 5th September, 1902.

Interrogatory resumed, on pursuance of adjournment, at the Court-house, Wellington, on the 10th day of September, 1902, at 10 o'clock a.m.—CHAS. C. ROBERTS, Coroner.

Cross-examined by Mr. Wade: Michael Quinn recalled states: I am sure that it was not within the last three months that I found gas in No. 4, it was last quarter, not this, it was three months ago, I told you yesterday that it was seven months ago in one place, I am going according to the air, it was two weeks ago, I spoke to Drangy and also to before. I spoke to them, not on the same day at different times, Drangy was on duty when I spoke to him. When we are on duty, then, I spoke to Drangy in the morning, between 7 and 8 o'clock, before I went to work, I did not speak to anybody about it the day I found the gas in the fifth right, I do not know what time of the day it was that I discovered the gas, that I know of I did not make a report to anybody about it that day, I offered to the support in gas evidence brought about gas, I was talking to everybody about the gas, it was such a common thing, it was common to it in Mount Kembla, it has been common talk in Mount Kembla for about ten years, a friend of mine was burnt there about that time, his name was Michael Gallagher, it might be over five years that Gallagher was burnt, I will not swear that it is not twelve years since he was burnt, I did not come to the support, the sergeant came to me. I had spoken to several people about the gas, I did not send Drangy as far as I would give evidence about gas, I do not know that he brought a message in from me; I had a dinner on my Brown high about gas amongst other things, I do not know when it was I had the talk with Brown high, it was over a week, but I have no idea of the time, I did not consider it was wrong to not tell the gas, like I said I did yesterday, it would be wrong if there was a large quantity there, I heard Mr. Rogers tell me not to do it again, and I felt it as soon as he had gas, and would do it again under the same conditions, I paid no attention to the under-ventilate orders.

To a Jury: The under-ventilate took the necessary precautions when I reported the gas, he put candles up, except in the case of black damp.

To Mr. Aspinall: Nothing was done to prevent the Mark-dump; it was not looked after by ventilation.

To a Jury: I do not think it was a very dangerous thing to do to light the gas as I did; it was safe, if there had been any gas in the roof it would have been dangerous to light it, and I would not have in it, my experience of twelve four years led me to know that there would not be a large quantity of gas behind the face, because we were driving in solid coal, and there was no plan for it to accumulate.

To a Jury: In working in a solid face there never came across a cavity.

To the Coroner: I never heard of a spate in coal-mines, I never heard the word used; I have never heard of a system of mud coming out of the face in coal-mines; I have been working at Mount Kembla for about thirteen years. I have not heard of a spate at Helenburgh, I never know of liquid coming through a road, there are no things which I wish to bring before the Court, one is that only miners who know the mine be allowed to take charge of mine parties, and the other is that safety-lamps be kept in readiness at all times, there were many there who would light the gas under similar circumstances to that in which I do it, I never saw any other man do it, but I expect there would be as I did, I cannot say of my own knowledge that there is another man in the mine who would do as I did, I am only speaking on my opinion; I have never seen men do it in other mines, setting the light is as close as my own.

Made and sworn, at the Court-house, Wellington, on the 10th day of September, 1902, before me:—

CHAS. C. ROBERTS, Coroner.

M. QUINN.

[illegible]

Once returned by Mr. Bruce Smith I was waiting in my car with the glasses held on the screen. I found the gas at the place marked on the map X2. I had had my dinner and had just gone back to work. I thought I had met a greynose. I told Wilson I had seen gas and that I had lighted it. I do not remember what he said. It seemed to just turn it like as if it was automatic. Edward O. Anderson was my man at that time. In a place near Sydney could see where the road had fallen in the place I have mentioned. I stayed in some down in pits. I threw managed to get out of the car, but the time I have mentioned in the only time I was ever gas. I have not worked in other areas.

Overseas command by *2d Esquadrón*. On the day of the disaster the one I met was not lost; it seemed just the same as my riding away after a long hunt. I have seen something like the scene happen after a fall in the main wolf pits, the woods and Cast about 300 yards down the road left a bit worse, nothing but to speak of. I thought that these had never a few. The morning, I had no other reason for thinking there had been a fire in the pit. I have seen with me and got my teeth, when he would not let me go as he told me to leave my gun behind and track the wolf's den.

[illegible]

Tom Jarama: A farm-heap was safe enough in Kentucky, so far as I know; of course, I am not so old, experienced miner, and I would not like to form an opinion.

Made and sworn, at the Court-house, Wellingburg,
the 10th day of September, 1882, before me—

Case C Swamp. *Bostrychia*

白雲山風景區 80.1 平方公里

Robert Simpson, 60, 2045 17th St. N.W., Washington, D.C. I am a miner, I was working at Mammoth, California in the West Virginia field, between 2 and 3 o'clock on that day I was working in a yellow No. 35, Indian, for Germany in the shale district. I did not observe anything until about 2 o'clock when I noticed a draft of wind, it was a great breeze; it came from No. 1; I was working where the mine is (T-1) on the place, I had been working there for two months, I was caught near the shaft of wind coming; I noticed the breeze, the weather didn't show what it was, I said I did not know, but it was something I had never felt before, and that was not better soon. I had thought that it was the best thing to do; I had never heard of it before, and I had never seen it before. I had thought that it was the best thing to do; I had never heard of it before, and I had never seen it before. I had thought that it was the best thing to do; I had never heard of it before, and I had never seen it before.

1996-1997 season

insulting the opposite way, when we found that the way was going in the opposite way. Mr. Popple said: "We had better try," we ran, we travelled up by the No. 2 right side road, and down that road to Mr. Slat's, we crossed from Mr. Slat's to the travelling road, we got to two dams at the shaft, and not down there for awhile, there were some men there that were very much excited, George McKinnon and Jan Dwyer and family. While were there, they started going away, and I left, but at the fork, and got up into an old working where the birds were stopped. I remember seeing a big blackbird and me up there. I went to the left and got into a stopping against the main road again. I started to get some of the way through; I got my head through the top and got some back air, the others had left by that time. I came back through a couple of cross-branches; I do not know how far, it was in the whole workings, we came back by the road we went, there were a lot of men there, we set down on some stones, and then Davy Bruce came up and asked what we were doing there; we said we were trying to find our way out. He said, "Come this way," we went with him and have brought out safely. We came out round the tunnel by old No. 2. I have worked in the No. 2 district, I worked in the third night, and the fourth night, and the fourth left, my brother Albert was working, with me in the third night, while we were working there we met with something unusual; that is three years and a half ago, I was at night, and I went to have my lunch at the farm, and when we were going into the door at Mr. Slat's, I do not know what it was, you could not see anything; it must have been gas, at that time, our lamps which we had on our heads, at that time we were within about 3 yards of the face, when at last I dropped down on to the floor when I got up again I could not see a little less light was on the face, I said to my mate, "We had better get back to the house," and on the way we met George, the farmer, and we told him what had happened. He came to and had a look and said, "Oh, there is nothing to be afraid of, wherever you are out for while you ought to take more shots and break the place out," we did what he said, when we went to we took our shots and gave the place a break out; we worked on that night, on the following night we went to work there again, and then we worked on there for about a week, I said to my mate, now go there during that week, at the end of that week we left the third night, in the fourth night I worked with my brother Albert, we worked in the fourth night for about twelve months in the pillars; I never heard of any person of the kind, so except that which I have mentioned in the third night.

Cross-examined by Mr. Lyne. The gas travelled when we left about 5 yards, I think, just to the face, the gas seemed to get from a hole in the rock. I never saw any hole deep in there, I never saw any black-smoke in the fourth night, I never saw any black smoke in the mine.

Cross-examined by Mr. Wade. There was no lantern there in the third night, we were working out the pillars, we were 6 yards from the face—3 or 4 yards, there was no danger point on the roof there that I noticed; the farmer told us to hold the lamp low when we were breaking it out, and we did; they do not carry lanterns up to the face now, not where I have worked in pillars.

Made and sworn, at the Court-house, Wellington, on }
the 12th day of September, 1900, before me— }
CHAS. C. BISHOP, Coroner.

Witness William Hopkin, sworn, states: I live at Kew, I am a miner, I am employed as a farmhand at Kew. I have been nearly fifty years a miner. I worked once in the Mount Kembla Colliery, it is somewhere about nine months ago since I left there; I knew a man named William Mose who was a brother of Mr. Broadhead. I was working with him (Broadhead) in the colliery, we were working from the shaft road in the shaft district, I do not remember the number of the hole, I did not know George, the farmer; I never heard Broadhead make a complaint to George or any other person about gas being in the mine; I never saw the sign of gas while I was working in the shaft district with Broadhead.

Cross-examined by Mr. Bruce. I worked with Broadhead; I did not work in any other place but the shaft district; I never saw a sign of gas in Kembla Colliery, I only worked there altogether for three months.

Cross-examined by Mr. Lyne. I was working both on a pillar and a bord while I worked Kembla; I was working with Broadhead in the bord, not on the pillar; I never worked on any pillar with Broadhead; no one told me that I had better try I did not want to answer any questions, I did not tell any person that I could give this evidence, I never spoke to anyone about Mount Kembla Mine since that inquiry started, unless I met a mate and had a few words with him, I was not subjected to any evidence here; I wanted to clear myself, because my name was in the paper. I heard that my name was in the paper a few weeks ago, I heard that Broadhead had said that my old bord where that exploded, some of the men say the mine told me that he had said that, Mr. J. C. Rogers did not tell me that, I came here on my own; nobody asked me what evidence I could give, I never saw the sign of gas at all; now, I never spoke to Mr. Barry about it; I never spoke to Mr. Rogers or to Mr. Wade; Mr. Barry did not speak to me, nor did I speak to him about the evidence I could give in this matter.

Cross-examined by Mr. Wade. I remember going down to "Gale's Hotel" last week; I was on the bench on Friday last week, I saw a gentleman at the office, he wrote something down; I worked on under a board in No. 2, that was No. 79; I never worked with Broadhead at all on No. 2; I put a mark in the paper in the office.

Made and sworn, at the Court-house, Wellington, }
this 10th day of September, 1900, after being }
read to and sworn, and he appearing to understand }
same, before me— }
CHAS. C. BISHOP, Coroner.

Witness William Hopkin, sworn, states: I live at Kew, I am the Chief Inspector of Coal Mines for the State of New South Wales. I have known that person for five years previous to that I was manager of the Burren colliery in South Yorkshire; I have had about twenty-seven and a half years' experience in coal mines, I have made it my business to be familiar myself from time to time with all the literature on coal mines, I am familiar with all the reports issued from the Home Office in recent years on explosions in coal mines, I was at Newcastle on the 11th July last, and left there by the

WILLIAM HOPKINS
sworn.

Witness to verify—
CHARLES BISHOP, Coroner-Deputé

the last part of the night and learned of the accident at Knoxville on my arrival at Redford. I had a conversation with the Foreman and took the first train to Wellington at half past 3 a. m. on the 1st of August. I arrived at Wellington about 6 o'clock and got out in the mine about 6. I then saw Mr. Richardson and had a look at the place, and arranged to go into the mine; I was accompanied into the mine by David Jones. As we went on by the north or daylight tunnel some distance from the main tunnel, we went into the workings on the left-hand side of No. 1 shaft along towards Adams' place. I met a party of men consisting of Mr. Thomas Cook, manager of Mount Pleasant Colliery, Mr. Johnson, South Colliery, Mr. Adams, West mine, Mr. Adams, South, Foreman and several others. The blow was not serious in the way of death as I met that party on the left-hand side of No. 1, there were some men removing the body of John Powell from head 103 which is the first level on the left-hand side of the No. 1 main level. Thomas Powell, I understood, had gone out earlier, and had been found on the ground-way near No. 2 right, the place on the plan marked X1 on the plan where the Adams were working; the place marked X1 is the position where the blow was reported the day before, after the explosion. I went with Mr. Johnson to the position above in and he had seen inside the day before, and some distance up the level, and found that although there was a small explosion, as though there had been a fire there was no smoke, and the fire had evidently been extinguished, several of the party were pretty well exhausted, as they had been working all night, there was a mass of more stretchers and fresh hands as it was decided to go out and get some fresh men, we went out, in the afternoon I went down with the Robertson, of the Metropolitan Colliery, down the No. 1 treaching road, we went to about 3 o'clock by the road work I was relieved on the plan by the line, we went right up No. 1 treaching road, just the telephone cable, past the 10 new coal and down No. 4 left, in Frank's flat, we went through all the workings in Frank's flat and in Frank's flat, and during that time the surface of surface or accidents were examined and were leveled, all these men, I think, had died from after-lung, I had been making observations of the mine, although I did not make many notes, on the 2nd August I made a single day tracing for my own use from the colliery plan, we went into the mine about 6 in the afternoon, the bodies of the two men, Noss and Stafford had not been located and we went in particularly to ascertain where they were; we found the bodies of Noss and W. Stafford, they were about 50 yards apart in the back or return heading of Stafford's main level, the point nearest the plan X1 is where Noss' body was. Noss was found lying on his back dressed. Stafford was found lying on his stomach, also dressed, it is with his head where they both appeared to have been coming from the after-draw from which they had died, they had been running towards the line.

Made and sworn at the Court-house, Wellington on the 10th day of September, 1902, before me, —

Chas. C. Harcourt, Coroner.

A. A. ATKINSON.

Report received in pursuance of an agreement at the Court-house, Wellington, on the 11th day of September, 1902, at 10 o'clock a. m. — Chas. C. Harcourt, Coroner.

After John Atkinson, sworn, stated: In my suggestion, I had an ordinary safety lamp. Mr. Richardson, who accompanied me, was carrying a hydrogen lamp, generally speaking with a hydrogen safety lamp, you cannot detect less than 2 percent of hydrogen, with a hydrogen lamp you can detect as low as 1 per cent. Mr. Griffith and I looked at the results, in the place where Noss and Stafford had worked, there was 1 per cent. of hydrogen, in the next place to that a 1 per cent. and in the next, 10 heading, 1 per cent. I made my next suggestion on the 4th August, I was then accompanied by Messrs. Rogers, manager of Knoxville (Knoxville), Inspector of Collieries in the Newcastle district, Mr. Hume, manager of the Co-operative Company, Mr. Griffith, manager of West Wyalusing Colliery, Mr. Telford, who at that time was under-manager of Mount Knoxville, we went down the treaching road to the shaft and up by No. 2 right (old No. 5) up near to Telford's working place, I have indicated the route we took by a line. There is a door higher at the shaft and the mine No. 2, I found the door unfastened, nothing was disturbed, but the old No. 5 return, and from there there was a place where a door had been. Telford had, I believe, worked alone, and he had got out alone, I think the place where Telford was working is: we went along the rope road to Frank's flat, there were no coal supply tubes on the flat, they showed distinct evidences of force tubes to the west, I have marked an arrow on the plan indicating the direction of the force, we went into 71, and there found the remains of a blow-out shot, that shot had been put into the wall of the flat, the arrow was not there, I think the shot had been fired probably on the morning of the 31st July, but I think it had nothing to do with the explosion, there was a full tub of 110 at the end of the rule, the disturbance in the western direction had not affected that tub, I found the gas there with the ordinary safety lamp, and found nothing, I did not test there with the hydrogen, we came back from 72 to Frank's flat and then up Stafford's going level into No. 52 workings, in the pillar workings (it was a rat-through which was being driven through a pillar. Noss and Stafford were captured there, we went down the gas with the hydrogen lamp, and found 1 per cent. we did not use the blow-out lamp at 72, because we had only a limited supply and had to conserve it, we examined the gas level several feet above the top of the main or main pillar (after mine), we found 1 per cent. of gas in those workings with the hydrogen lamp, about 10 feet above the top of the main I tried the gas with the ordinary safety lamp and found no gas, not finding more there with the ordinary safety lamp is reasonable slight finding I perceive with the hydrogen lamp, we examined up the full main track into the entry in the goaf, we entered down Stafford's going level and into the edge of the 12 new goaf on the line of No. 4 left rope-road, we found no gas there with the ordinary lamp, we then went on to 103 of a flat at Stafford's flat the mine showed indications of force towards the west, I got out the door particularly on the surface and of No. 4 left rope road, there was some quantity of dust on the floor more particularly, I think that part of the door had been blown down, but I remember what happened, I took a sample of that dust and had it examined microscopically to see if it had been silica, the Microscopist of the Mines Department reported to me that there were no signs of coloring, I took dust down from the floor from there as well as to the shaft 400 yards at the bottom through No. 2 main level, there was a 1/2 which there which (near the main level off, there is somewhere about 60 yards from the 1/2 which is the flat, we went beyond the 1/2 which, it was not found off beyond the 1/2 which, however,

[illegible]

about 26 yards further left, but they were full; there had been a wooden dock near to the No. 2 left rope and it was down, and the timbers had been forced about 8 yards outwards, we found four fall tubes on the rope end on the left side of No. 2 left, the second one was standing on its end; the wheels having outwards; the force indicated was sideways; we examined at No. 4 right and found a little black smoke, there had been a canoe down there, but it had been blown out; we found a piece of masonry under the floor fall tube mentioned, that was evidence of where the masonry had been blown; we found a piece of masonry found about 15 feet on the right side of the No. 4 right end and, both the pieces of masonry were evidence; the masonry which we used for the ropes to run on sides of No. 4 contained small reflections of stones and rubbish on the masonry side of the rollers, indicating a force sideways to north from there; No. 4 right appears to be the point at which the force diverge, one up the other down. The great rock of air had come out of the gulf at No. 4 right and struck against the air opposite, that would perhaps account for such indications of force as I saw, if such a rock of air came out at No. 4 right there might, having regard to the way of the road, be a little greater tendency for the air to go sideways from a point than from below No. 4 right to the lowest point, No. 4 right there was a little under on the floor; this showed that it was near the house, or the lowest point, or perhaps that some of the water masonry had been running over, the right hand sloppings at that point were blown towards the travelling road from the No. 1 main level; this showed that the force which was in the main level was towards the travelling road; at a point 124 yards below No. 4 right there was a broken tub wheel, 20 yards further below there was a wheel and an axle, which completed the pump, and 3 yards further below was the body and frame of the tub with a pair of wheels underneath, about 80 yards along the No. 4 left rope it was well gutter supported by a prop at one end, the other prop was blown out by the, and the construction of the girdle had been forced in that shape from its original position, that all showed, these things; we went on then to Stafford's and Price's pit, the faces as shown by the tubs in No. 4 left at the bottom of Giff's gully bend and Stafford's gully bend was sideways towards the west, the faces seemed to die out between Price's and Powell's faces on the rope road, I then visited the remaining places on No. 1 and found nothing unusual, in Moon and Price's place there was a clock pressed, but not fixed, the machine of that place is 28, I have marked the place X 6, that ends the inspection on the No. 1, on the No. 1 went on again with Messrs. Hinch, D. A. W. Keeney, James Watson, William and John Mervin, we went to the No. 1 travelling road to No. 4 right again, there were indications of force in about thirty couple yards in a north-south direction; we went up then to No. 4 right; there was a large stone about 1 ft 8 in high lying in No. 4 right road on the right side, or between the travelling road and the gulf, I could not place where that stone had come from, I could not trace any entry near there into which it would fit, and I could not form a conclusion as to where it had come from; the stone appeared to me to have been there either before the explosion or a consequence of the explosion; I think it had not been there very long as it would have interfered with the traffic, probably as consequence of the explosion, I went on then to the travelling road and the gulf which showed a force in the direction of the gulf, we examined for gas there, we did not find any, we examined there with the hydrogen, I examined the stones at the edge of the gulf and found them quite clean, or not blackened with red dust, indicating is not that at least some part of the fall had taken place subsequent to the explosion, this ended the inspection on that day, on the 22nd August I went in again with Messrs. Watson and Adam Frost, again we went to the No. 1 travelling road, the air coming below No. 2 right was blown out and indicated a force right and left; we then went to No. 1 right and went 30 yards from the bottom of the travelling road to No. 4 right, on the gulf edge, and in that case there were quite black with coal dust, we tested for gas there and found none; then we went up to the face of No. 2 right, up to the rock, I noticed some masonry coming on the props on the right side; there was some or very little coming on the masonry side of the props, there was also a state of this coming on the right side; we lead for gas with the ordinary lamp and found none; we listened for singing, or gas coming from the face, and found none; I noticed the heaviest about 14 yards from the back heading and it was not burned, there was nothing particular about the roof above as the back heading, the masonry in the back heading was not burned; at the bottom of the working place No. 300 there is a prop with a slab of timber on it, the prop at the other end of the slab was blown out, the fractured end of the slab had been forced sideways, or to the west, about 40 feet out of its original position, attached to the slab was a small piece of canvas for drawing the air up the body; we went on near to Stafford's place, and there was a very little sign of side-dust there, that was the whole of that rock; On the 2nd of September I went in again with Messrs. Hinch and Watson, and went down the No. 1 travelling road, there was a little water on the floor in two or three places, down near the No. 4 right, opposite to the chest and in the travelling road, we found a canoe down and frame next to the end of it; the canoe and frame occupied the position of a door in the about 11 inches to the the pressure of a force from No. 1 main level towards the travelling road or gulf, there was an old door frame in the travelling road on the right side of No. 4 right, and looking across at the side showed a force sideways to towards the north, at the No. 4 left rope road end is a couple of tubs turned at right angles to the road, I was not able to form a conclusion as to which way the force had driven it, further in there were three empty tubs turned on their sides, on the tub furthest on the left-hand side was swung round the handle, and the same way was swinging the handle of the tub side, I have been able to trace any conclusion of which way the tubs had gone, beyond the empty tubs were two full tubs, the road from the last one appeared to have been moved sideways, there is very little further below No. 4 right up to the face which affords any indication of force, in the left hand cut through the first on the right side of No. 2 right the masonry door had been forced to the west, or sideways, that probably completed the direction which my conclusions have been drawn, I am in doubt, as between two points, as to the locality of the disaster, this is that a fall may have taken place in the No. 4 right, at the side of the 300 yard gulf, setting out on possibly started with a small perversion of the masonry, and then would travel along the main road, possibly moving some road dust, which would become ignited at the nearest naked light, and from that point the explosion would radiate, the other is near the face of the back heading, where I have put the blue X, with reference to the No. 4 right, from the appearance of the stone at the gulf edge being quite clean it affords proof that the fall had certainly not happened until after the explosion had taken place, the principal difficulty which I have in deciding as between the two points is the extraordinary evidence of force in the No. 1 main level between No. 4 right and the face, the other theory is that one of the Messrs. Giff had a difficulty of the masonry side of the back heading, which is the last one in the road that, which has been the means of carrying the explosion along, there does not appear to me to be any

any sufficient reason for the Mines' leaving their working place and going up this heading, as there were no signs to be got up there, and I understood that the place had been found, the position in which their bodies were found has proved, however that they had left their workings and gone up the back heading either before or after the explosion. The explosion on the 11th of August showed that these places do give off some fire damp—that is, the headings do—although it may be explained that the explosion had been that of what we call fire, for some three days, as a consequence of this fire having been left open in the No. 4 right air road, the conditions about the workings are quite consistent with the view that the explosion started in the back heading—that is, the three stoppings between the two headings on the edge side of No. 4 right air road. I have heard it said frequently during the course of this inquiry, that there has never been fire damp found in Kumbia; there is the case of the Chaurion mine, England, which had been worked for about 200 years, fire damp had never been seen in it, and an explosion occurred which killed several men, and the cause was attributed to a shot in a heading not ignited and dust, there was made, after the explosion, with the headings in the fire damp was found. I have the report of this, from the Home Department, the report was made by one of Mr. Rogers's Inspectors of Mines—Joseph Motson, the following sentence appears in that report—"No fire-damp is absolutely unknown, as a fact or by name, as any of the eight mines during the last week were in any part of the coalfield, it is consequently unnecessary to say that there has never been any seen in this colliery either before or since the explosion". I have also of a case at the Newcastle gas, where an explosion of coal-dust took place in a hopper; that is quoted as the reason of the Royal Commission on Coal-dust in 1901, of which Mr. Joseph Chamberlain was chairman, it is universally acknowledged that a very small percentage of gas will be sufficient to cause an explosion in a cloud of coal-dust. About 1 1/2 per cent. of gas with an equal light will be sufficient, and Gallows 1 per cent., explosions have been known to arise from the flow of gas frequently, an ordinary safety lamp is not sufficient test of the quantity of gas which is sufficient to cause an explosion of coal dust, it is not sufficiently delicate, that is referred to in that, Gallows says that 1 lb. of coal dust to 100 cubic feet of air forms an explosive mixture with 1 per cent. of the damp, about 1/2 one of coal-dust per hundred feet of air, and Kumbia would be sufficient to be dangerous in the presence of 1 per cent. of the damp if mixed in a cloud in the presence of a naked light, with a cloud of coal dust, eye-witness have resulted from a shot, without the presence of any gas, Chaurion Colliery is one case, Abernethy Colliery, in Yorkshire, is another, and there are several others in which mines have found that the combination of dust and the entrance of force which I saw at Kumbia, every characteristic of coal dust explosion; from the centre of an explosion seen the forces radiate in all directions, and with a mixture of these explosive gases you may have contradictory evidence of force were the same ground, if there were only one big explosion of gas in a mine, all the evidence of force would radiate from the one common centre; gas is frequently given off from the strata above coal seams, gas is usually found in veins and gas covered strata, mine particularly is stable, but explosive in conditions, and when the presence of the gas is in some cases tends to break down the coal it has been necessary to get boundaries in the coal to remove the pressure.

Percentage of gas by Mr. Lumsden. When I was sitting at the bottom of the headings lamp I discovered the percentage of gas in a particular place; some of the places were in the roof right, and others were in the roof faces; having regard to the fact of the diffusion of gases, it is probable that a somewhat smaller atmosphere would prevail in the immediate vicinity of where the tests were made, the tests were generally near the roof, and in some cases when we were taking the test of the gas at the top of the strata, the gas which I found in an explosive quantity with the safety lamp was about 1 part in 15 cubic feet of the roof. I had some doubt as to how far the gas was from the point where we found it, the face was about 20 yards from where we found the gas; I concluded that any trace of air and gas in some proportion extended right on to the face—the test is about 4 yards wide and about 2 yards high; there were 100 cubic yards in that heading; assuming that there was 2 per cent. of gas from the point where I made the test to the face, there would be an accumulation of 20 cubic yards of fire-damp in that area. I recollect that Morrison said that place was found off; I remember in fact that it was not supported on the morning of the 11th, and I remember someone saying that the place had not worked for some months; the reason there is in a part of the mine which is in a way and perhaps it may be said that if gas is used, it is a likely place for gas to accumulate; you cannot have gas coming from the face there, I know where the bodies of the Mines were found; I was told they were found between 70 and 80 yards from the face, I should say that it is improbable that gas extended 80 yards from the face to the place where their bodies were found, it is not a fair conclusion to say that the gas could have been there before they were found, for there are cases in which men have got some distance after being found, the correct body of the Mines to the fourth right was over 300 yards from it, and the bodies of Smith and Morrison were about 250 yards from the fourth right, assuming that there is a fall in the fourth right, I should think that coal dust could be carried 250 or 300 yards by the force of a shot or gas; it could only go on the face of the gas in No. 4 right, and that gives me some idea of the extent of the fall beyond the edge of the gas, I think that if the 11th right place in No. 4 right had caused a cloud of dust, that the atmosphere was probably impregnated with a small percentage of fire-damp when it ignited, I do not know whether, if some of the strata were fractured at the edge of the gas, it would be possible to ascertain whether the fall took place before the explosion, or (the 11th) might have taken place simultaneously with the explosion, but the evidence is that it was completed afterwards if the disaster took place in the back heading, I think that it was a small explosion of gas and air; I should say that the explosion, whatever it was, whether it had been, but even if it had been entirely by coal dust, I have found that Kumbia Colliery was burnt near Stafford's ground here, I think it very improbable that there would be fire-damp all along the road towards the place where Kumbia Colliery was found, there was no evidence of the explosion having travelled far up Stafford's going road, I think that it would be improbable that the flame that Adam Stafford saw was gas; I have seen an official report of the burning of Gully Colliery gas, having found gas in the way I have stated; I should say that if the trouble commenced at No. 4 right, I think that the explosion originated from a combination of coal dust and fire-damp and a naked light, if it started at Morris' place, the initial explosion was fire-damp and air, and ignited a naked light. There are standard preferences for one theory or the other, and I think that on balance examination would enable me to decide, the No. 4 right had been a head up road for three years and there was a very good quantity of dust, although not an unusually large quantity, in the vicinity of the fourth right, if a shot were

End

need not be, it might be dangerous, but not under normal conditions; that was not a place where shots were likely to be fired, supposing that the explosion started anywhere there. I think it probable that there was a sufficient quantity of coal dust in No. 4 right to have caused it some considerable distance. I think that the front left eye was blown so dirty a piece of the road as I saw, and once the explosion was initiated, there was, I think sufficient dust to carry the explosion along for a considerable distance. I think that the proof of the explosion in the last evidence as to whether such conditions were dangerous once an explosion was started. I think that the explosion has been caused by coal dust after it was started.

Continued by Mr. Wade: We examined the place in the back heading about twenty to twenty six hours after the explosion, that is under spot is about the highest point in the mine; the ventilation for the strike of No. 2 comes had been damaged for the strike of those four days.

Made and mine, at the Court-house, Wellington;
the 11th day of September, 1902, before me:—

A. A. ATKINSON.

CLAU C. REYNOLDS, Coroner

Inquest returned on presence of adjournment at the Court-house, Wellington, on the 10th day of September, 1902, at 10 o'clock a.m.—CLAU C. REYNOLDS, Coroner

After taking testimony, recalled, states: The effect of the door at No. 4 right being open would not be to prevent the air going up to the face of the back heading, the usual course of the air was down No. 1 main level and through the rail through on the outcrop side of Morris' place, and the more fact of the door after being open would not prevent the air taking that course, but the explosion damaged the conditions in other respects which prevented the air going up to the face of the main heading. I did not take a note of the distance the rail could be traced that was hooped against the pillars. I can say that it commenced at No. 4 right and went where, but I cannot say the exact distance; there would be a narrow door on the outcrop side of the air through opposite to Morris' place; I do not remember tracing that door, the contradictory evidence of force in No. 1 level was the contradictory statements with reference to the relative positions in which the body and head of Dansey had been found, the strength of the explosion was suggested three empty tails, it being stated that in the end of one of these tails round the drawer, and the second and third one of the heads of the mine side of the door, and, greater is speaking the difficulty in ascertaining the direction of force amongst all these tails between No. 4 left to a point a little beyond No. 2 right, and the general absence of further suggestion between No. 4 right and the face to assist in indicating the direction of force. I think that Dansey's head and arm being off could have been caused by flying timber; stones being driven might also do it. If it were the nature of an explosion that would be a very likely cause of his arm and head being off. I do not think there was much evidence of disturbance just at the point where Dansey's body was found, there were very distinct evidence just a short distance on the outcrop side and also on the inside of where the body was found. I do not think that it would necessarily be that if he were the cause of an explosion the body would be found in it, in such a case I would expect to find evidence of some about the body. I think that after the head was detached from the body it would go the greater distance, for it would be lighter than the rest of the body. If the weights at the two bodies were perpendicular to their respective surfaces. I should expect the body with the larger surface to be blown further, the telephone wire was so good round the face of the rail at the end nearest to the face. The wire was embedded into the wood at the end of the rail; the entangled wire was about 25 yards on the outcrop side of No. 4 left, the tail was off the rail, I think the telephone wire was detached from the rail but I could not swear to that. The door at five half tails between the fourth left and fifth right were edge of the entangled tail, the outcrop side of these doors was turned at right angles to the road, the note I made at the time is as follows:—At 25 yards, dead lower, at 35 yards, full rail on side cross road, and drove in a small enough hole and tail down lying on tail but was obstructed. The distance must read at from No. 4 left, I do not remember what way the slack of the wire that was lying at right angles were facing that indicated to me that the face at that particular point had been where, in No. 4 right a number of people were going which I understood had been some distance across the road, but it is very difficult to say a lot position that timber occupied before the explosion, and it has been found in position before it would have affected clearer evidence, there were timbers in both directions both coming in and going out to No. 4 right, although I was unable to discover the position that the stone I mentioned yesterday had occupied before the explosion. I think it is more likely that it was on the outcrop side of the two strike and rather than the other side, there was also a gap near to the road on the right side which showed a large towards the road, the stone as near as I can see five feet on 25 or 20 yards from the road edge, on No. 4 right, I could not say that there had been the appearance of a stone coming from the upper mine above the gap, this particularly since you dirty I think the stone at the road side was clean, the timber at the back heading was damaged but I could not swear that it was seriously hurt, if everything was regular the air current would be going up the back heading and then back into No. 10 level. If Morris went through a level that would be in violation of the rules, I could not understand any reason why, apart from the rule for his going to there, I think it unlikely from what I saw that the gas was explosive at Morris' end though, because Morris' place was the first one on the air current, if there was gas there I do not think it could be more likely that there would be an explosion at No. 10 level, because the air in No. 10 level would be increased by any air which would pass through the narrow door in the No. 2 main level between the air through opposite to Morris' place, and the air on the outcrop side of it, a considerable quantity of air goes through narrow doors usually, the air from the main river at that point would be a good many hundred feet from the coal, if a plant had been in the right month I would not expect all the gas to have exploded, but it would, if there is no thing less so as to more of gas would probably be picked free, I think that if a solid light had come in contact with the gas, if there was gas there, there would have been an explosion, I cannot say that if there had been gas given off from the right heading, and the air current coming, that I would have expected an explosion from a solid light before the 11th July; I would believe a place, I made a note of these being paper sheet there which was unusual, but there may have been, the nearest proof which

which extended to No. 6 right was on the inside of the roof through where Morris and men were found, as far as I remember that was the nearest indication of coal-dust to No. 4 right. I collected the coal-dust from over the top of the prop, but I could not say whether it was right down to the wheeler or, in fact, I noticed that over the prop to No. 6 right it was worse than on the more hazardous, I noticed moisture on the roof in No. 4 right. I think the moisture is peculiar to pit-lane workings, especially in such a place as that where the current of air is directed right on to the roof edge, if the moisture were due to a sudden and great movement of air I do not think that it would have remained as long after. I think that a deposit has passed either on or out of No. 4 by the evidence of the sample of dust which was collected in No. 4 right, and has been contained under a mass of coal. The dust was collected about 20 yards on the slope side of the working road to the destination of the coal, that dust was examined by Mr. Mangan, the Mineralogist of the Department of Mines. I do not remember any signs of flame on the surface dust as No. 4 right. I did not find any signs of flame at the junction of the heading road. I do not suggest that there had been a naked light between the heading road and the edge of the coal at No. 4. I do not suggest that there had been an explosion of the explosion by a naked light between the heading road and the main road road having regard to the positions in which bodies were found after the explosion. If Morris were at his usual place of work about 8 o'clock No. 4 right when, I would think, it would probably be the second part of the night, a naked light would be needed by gas, and not dust coming out of No. 4 right. The explosion that I saw at the coal edge of No. 4 right suggests that there has been a big fall in the roof. If the roof fell in one solid piece near the edge of the coal it would drive the air down. No. 4 right would seem considerable force I should think, but some of the force would be expended in the passage through the heading road. I could not say that the damage I saw to the shock at No. 4 left was caused by the air blow and nothing else, the force of the explosion would account for the damage to the shock. I think that some force has passed along the main road (passed to No. 4 left). I do not say that it transmitted there, so far as the evidence goes the nearest man with a light was near the telephone cabin on the surface of No. 4 right. I think that what caused the damage to the shock was an explosion of coal dust, you do not necessarily need a flame-out that is caused as an explosion of coal dust, an explosion of coal dust may be caused after an explosion has been initiated by a mixture of coal dust, air, and gas in a naked light, or by an explosion initiated by means of a fire lamp and air in a naked light, or by an explosion of coal dust with air or dust, gas mixed by a shot. I think that the force that displaced the shock at No. 4 left came from where, probably edge of No. 4 right, that is in the case of gas being forced out of No. 4 right. I have seen gas at the edge at which as would be forced down No. 4 right if there were a very large fall of roof in the roof there. I have seen areas calculated to give rise to the damage of a large fall falling on down a g. I have seen a large fall of 4 yards by 4 yards. I generally speaking the roof falls in small pieces not covering very large areas. I believe that the shock that he saw a few feet above where he fired a shot, the roof falls in small pieces of the powder from the bang of the shot and not of gas. I would not generally speaking, speak to the fact that close to the roof in Keweenaw, if there is a shot fired close to the floor in a working place, and if explosion gas, that would indicate that there is an enormous quantity of gas, if coal-dust was present, and it was carried to other parts, there would probably be a tremendous explosion, but if gas only were present there could be a local explosion of considerable force, coal dust would require to be raised in a cloud to be dangerous with 2 per cent. of the gas, some authorities argue that the cloud would have to be so thick that a man could scarcely live in it, but I do not quite agree with that, it, however, assumes a condition that does not evidently exist in a mine.

To a Juries. The inspectors need not a report after each inspection of the mine; in those reports for the last air or twice months ago has not been reported at Keweenaw.

To a Jury. It is a breach of the rule to let the gas with a naked light, and it is certainly bad discipline to light gas, and it would be dangerous if there were gas there in any quantity, or if it were left burning, it is quite impossible to say what quantity of gas is behind the face when gas is coming from the face.

To a Jury. This would have combustion of carbonaceous hydrogen before the carbon monoxide can be produced, with complete combustion of the gas, as CO 4 and air, the results are free nitrogen, carbonic acid, or CO 2, and steam; so that even this is an carbon monoxide, it is only when the combustion is incomplete that the carbon monoxide is formed, and as oxygen is consumed the combustion appears there to be incomplete, with 20 per cent of air in it free oxygen gas complete combustion, and in that case there would be no CO formed. CO 2 is the result of complete combustion, but there may be some CO, in addition to the CO 2 with incomplete combustion.

To the Engineer. Having regard to what has happened, I do not consider the naked light to be a safe one to be used at Keweenaw. The official reports had not disclosed the presence of any fire-damp at Keweenaw for some time, nor had I detected any fire-damp in my own inspection prior to the explosion, and, therefore, I did not feel justified in suggesting the use of safety lamps. I think it would be prudent, having regard to the safety of the workmen, to use safety lamps at Keweenaw. I think that if there had been no naked lights this explosion would not have happened.

To a Jury. A safety lamp does not afford quite as much light, but it is no use in the old country go to show that the miners can produce as much coal with the safety lamp as with the naked light, and there is no increase of accidents due to life of roof where safety lamps are used, there is also a more general feeling of security in mines where gas is occasionally given off.

To a Jury. When I tested for gas previous to the explosion, I tested with a safety lamp. I think that the combustion of coal dust in this disaster was incomplete.

To a Jury. The ordinary coal gas which is distilled from coal largely consists of CH 4, but there are a number of light carbons produced from coal.

To a Jury. I think that the conditions at Keweenaw is different from where it happened, there are two or three shafts but any sign of it is considerably out-of-the-way. It is not desirable to have old workings unworked, it is desirable to put a curtain of air along the edge of them.

To Mr. Justice Smith. The Coal dust Commission of 1885 arrived at the conclusion as follows:— "There appears to be no probability that a dangerous explosion of coal-dust alone could ever be produced by a naked light or ordinary flame." I mentioned that in my evidence yesterday when I referred to the Commission (page 209 of the Report), but it was omitted.

To the Foreman: It is no part of an Inspector's duty to sign the books kept at the mine, but they send the books to show that they have been there and have seen the book; it does not indicate that the Inspector has checked the verification in the book, they take the verification when they are there, and report to me.

To the Foreman: I think I suspected Kanika myself in March last before the disaster; on that occasion I was there or four hours inspecting, I say that the reports of my inspections before the disaster at Kanika are not incorrect.

To the Foreman: I think that the fire I mentioned yesterday at the position X2 on the plan had been caused by the explosion. There had been the actual combustion of some things there on the floor, one was a piece that was about 10 inches from where Morris and son had been working; there are sometimes caused by explosion of considerable distances from the source of the explosion, in some cases even a mile, and therefore the evidence of this fire could not lead you to fix the seat of the explosion with any certainty. The Storey and has a good number of holes, if a force took place in that part near the edge most of the force would come out of the openings at that side; I do not think there would be a great part of the force lost in the way or through the other openings in a roof of that size (35 acres). I did not see any evidence of force coming from No. 5 right, that would in no way tend to discredit the goal as being the origin from whence the force proceeded; I think that a large force would have more opportunity of doing damage than as you suggest the flame of a match; I think that, if a large quantity of inflammable gas were blown out (say of No. 4 right) that if it came against a naked light (say a candle) that although the match might be put out, yet the inflammation would take place immediately. The presence of this fire-damp does not afford any indication of the presence of the fire, fire-damp differs more readily than black-damp, I do not think there is any absorption of illumination either between the fire-damp and the light, whereas the black-damp and the way, next the roof it would be mostly fire-damp and next the floor it would be mostly black-damp, but there would be an admixture of the force throughout, I do not altogether agree with the phrase which you have just read from the report of Dr. Hildes (page 12) on the subject of the fire of destruction of the fire of fire-damp, fire-damp burns a gas like oil, I should consider that the red light which Adam Stafford states he saw would be due to the combustion of coal-dust. I cannot understand that it was not somewhat hot in the circumstances which Adam Stafford has stated, in explosion which have been attributed to coal-dust, you may have long lengths of ground over which the explosion has passed, with no admixture of flame, I think that some coal-dust under some circumstances could have been ignited at a temperature between 340 and 430 degrees F., which is less than white heat, I think that therefore, as described by Adam Stafford, with the flame, would be capable of setting up another explosion of coal-dust under favourable conditions, which Adam Stafford states he saw only points to the fact that the admission of flame was towards the west of that point, and only agrees with all the evidence of force I saw at that particular place, I do not feel inclined to differ from the conclusion of the royal commission referred to to-day, I think that it is entirely that a mixture of coal-dust and gas would be ignited at the light of Morris, because the conditions existing there are different to those mentioned in the case of the Hopper at Bannockburn, in the latter case dust was being shrouded from a considerable height, and was coming into contact with a naked light.

Made and sworn at the Court-house, Wellingburg, Ohio.

18th day of September, 1902, before me.

CHAS. C. BROWN, Coroner.

A. A. ATKINSON

Inspector adjourned, for the purpose of further evidence, @ the 18th day of September, 1902, at 10 o'clock a.m.—CHAS. C. BROWN, Coroner. Court-house Wellingburg, 20th September, 1902.

Inspector adjourned, for further evidence, @ the 18th day of September, 1902, at 10 o'clock a.m. at the Court-house, Wellingburg—CHAS. C. BROWN, Coroner. Court-house, Wellingburg, 21st September, 1902.

these degrees, and, after all, the main point to be noted is that with all the samples of dust an explosion was obtained in some cases, the dust was a considerable excess of composition by large grains of coal, and these grains fell to the ground as it is shown after the dust dust had been exploded. In the whole, the dust seems to be of the same quality as that obtained in English coal mines as regards its composition in relation to the condition of the dust.

I may add that the test is of a nature that there seems to be that that originally intended that was abundance of being a change into all atmosphere of suspended dust.

A. THOMPSON, U.S. Corps.

Officer in Charge, Mine Office, Testing Station.

81210

No. of dust	Country	Result	No. of dust	Country	Result
1	Mount Pleasant	Explosion	52	New York	Explosion
2	South Rich	Minor violent explosion	53	Pacific	Minor explosion
3	South Rich	Violent explosion	54	St. Louis	Explosion
4	South Rich	Explosion	55	St. Louis	Explosion
5	Coal Hill	Minor explosion	56	St. Louis	Explosion
6	Coal Hill	Explosion	57	St. Louis	Explosion
7	Mercury Hill	Explosion	58	St. Louis	Explosion
8	Mercury Hill	Explosion	59	St. Louis	Explosion
9	Mercury Hill	Explosion	60	St. Louis	Explosion
10	Mercury Hill	Explosion	61	St. Louis	Explosion
11	Mercury Hill	Explosion	62	St. Louis	Explosion
12	Mercury Hill	Explosion	63	St. Louis	Explosion
13	Mercury Hill	Explosion	64	St. Louis	Explosion
14	Mercury Hill	Explosion	65	St. Louis	Explosion
15	Mercury Hill	Explosion	66	St. Louis	Explosion
16	Mercury Hill	Explosion	67	St. Louis	Explosion
17	Mercury Hill	Explosion	68	St. Louis	Explosion
18	Mercury Hill	Explosion	69	St. Louis	Explosion
19	Mercury Hill	Explosion	70	St. Louis	Explosion
20	Mercury Hill	Explosion	71	St. Louis	Explosion
21	Mercury Hill	Explosion	72	St. Louis	Explosion
22	Mercury Hill	Explosion	73	St. Louis	Explosion
23	Mercury Hill	Explosion	74	St. Louis	Explosion
24	Mercury Hill	Explosion	75	St. Louis	Explosion
25	Mercury Hill	Explosion	76	St. Louis	Explosion
26	Mercury Hill	Explosion	77	St. Louis	Explosion
27	Mercury Hill	Explosion	78	St. Louis	Explosion
28	Mercury Hill	Explosion	79	St. Louis	Explosion
29	Mercury Hill	Explosion	80	St. Louis	Explosion
30	Mercury Hill	Explosion	81	St. Louis	Explosion
31	Mercury Hill	Explosion	82	St. Louis	Explosion
32	Mercury Hill	Explosion	83	St. Louis	Explosion
33	Mercury Hill	Explosion	84	St. Louis	Explosion
34	Mercury Hill	Explosion	85	St. Louis	Explosion
35	Mercury Hill	Explosion	86	St. Louis	Explosion
36	Mercury Hill	Explosion	87	St. Louis	Explosion
37	Mercury Hill	Explosion	88	St. Louis	Explosion
38	Mercury Hill	Explosion	89	St. Louis	Explosion
39	Mercury Hill	Explosion	90	St. Louis	Explosion
40	Mercury Hill	Explosion	91	St. Louis	Explosion
41	Mercury Hill	Explosion	92	St. Louis	Explosion
42	Mercury Hill	Explosion	93	St. Louis	Explosion
43	Mercury Hill	Explosion	94	St. Louis	Explosion
44	Mercury Hill	Explosion	95	St. Louis	Explosion
45	Mercury Hill	Explosion	96	St. Louis	Explosion
46	Mercury Hill	Explosion	97	St. Louis	Explosion
47	Mercury Hill	Explosion	98	St. Louis	Explosion
48	Mercury Hill	Explosion	99	St. Louis	Explosion
49	Mercury Hill	Explosion	100	St. Louis	Explosion

A. D. 1881.

ROYAL COMMISSION OF INQUIRY RESPECTING THE MOUNT KEMBLA
COLLIERY DISASTER.

MINUTES OF EVIDENCE.

TUESDAY, 3 JANUARY, 1903, 11.30 a.m.

[The Commission met at the Court House, Wellington.]

Present:—

C. E. B. MURRAY, Esq., D.C.J. (PRESIDENT).

D. A. W. ROBERTSON, Esq., Commissioner.

D. MITCHELL, Esq., Commissioner.

Mr Bruce Smith, Barrister at Law, instructed by the Crown Solicitor, appeared on behalf of the Crown.

Mr A. A. Adams, Chief Inspector of Collieries, assisted Mr Bruce Smith.

Mr A. J. Lynght, Solicitor, appeared on behalf of—

- (a) the representatives of deceased miners, widows, &c. (victims of the explosion);
- (b) the employees of the Mount Kembla Colliery (miners, wheelers, &c.), and
- (c) the Hibernia Colliery Employees' Association (the Hibernia Miners' Union).

Mr C. O. Wade, Barrister at Law, instructed by Mr P. Carless, appeared on behalf of the Mount Kembla Coal and Oil Company (Proprietors of Mount Kembla Mine).

(Mr J. Gaskin, Secretary to the Commission, was present to take shorthand notes of the evidence and proceedings.)

1. *Mr Moore* [Is there any other person who wishes to be represented or to appear personally? (There are no answers.)

2. *Mr Moore* [I think, Mr Bruce Smith, you wish to make some suggestion?]

3. *Mr Bruce Smith* [Yes. I would like to make a suggestion to the Court with regard to the procedure. Of course the Court will settle its own procedure, but I am quite sure it will be open to suggestions from Counsel, especially in view of the fact that the questions to be discussed by the Court have been already gone somewhat fully into before the Governor and Governor's Jury. The Court does not necessarily require to hear any issues before it, but I take it that the Court would like to have some definite propositions to which the evidence may be applied. And it seemed to me from what I saw of the inquiry before the Governor and the Governor's Jury that the Commission shaped itself into three different points of view. The Crown, of course, is mostly bent to see that the mine-gangers is a full one, and to see that any light that can be thrown from any direction on the subject of the inquiry which is opened, either on the part of the employees or on the part of the Company, should be rapidly received from the Governor's point of view. Now, the course adopted before the Governor's Jury was this: The police brought forward all the evidence that they had with regard to the deaths of the men who were in the mine at the time of the disaster. They brought forward a number of witnesses who were removed from the mine, a number of witnesses who had gone into the mine for the purpose of rescuing, and had seen the condition of things immediately after the explosion or accident; then, having had that evidence before the Governor, the returns which were requisitioned by Mr Lynght got forward a number of witnesses to give their various accounts of what they had seen, the data upon which they formed their conclusions. They put forward suggestions, practical suggestions for what they were worth, as to the cause of the disaster. Then the Manager was put into the box, and he gave his view of the matter without presenting to the Governor or the Jury any very clear propositions as to how the thing took place, and one or two other witnesses were called on the theoretical side of the question, and the case was finished. Now, I was going to propose to the Court that the Commissioner, I suppose, will first of all call such witnesses as are previously called by the police.

4. *Mr Moore* [The Commission does not intend to recall that evidence. The Commission views that as evidence already given.]

5. *Mr Bruce Smith* [I mean to say that that part of the evidence will be really brought before the Commission by the Commission itself. I was going to propose that Mr Lynght should bring whatever evidence he has, it is all of a practical character—and that the Department should then give what evidence it can offer with regard to the mine and the locality of the accident; and then both Mr Wade, on behalf of the Company, should be allowed to call his witnesses last, on condition that both Mr Lynght, as representing the mine, and I, as representing the Department, should be allowed to answer any fresh evidence or any new theory after that, that which has already been advanced which may be brought forward by the witnesses called by Mr Wade. So that, according to my suggestion, the order would be first, those witnesses who have already been before the Governor; then, just any further evidence that Mr Lynght chooses to call; then Mr Adams, the Chief Inspector, and any other witnesses of that character that the Department chooses to call, though we have said, Mr Wade's witnesses, with the right on both Mr Lynght's part and my own to answer them. I think the Court would find that that would settle all the evidence that it wishes to have before it.

What, the implication contained in the statement to the mind of Mr. Robertson—I speak now under instructions—and to the minds of the Members referred to there, is that Mr. Robertson is capable of uttering such a statement as regards the Court's opinion, and that the Members themselves were as aware as it is to be in a statement by Mr. Robertson in the same way, and that they feel as that to some before the tribunal as an individual and member of which he made that statement, and that statement being an unqualified, unqualified and unqualified, that God that the Commission cannot take that view and judicial view of these evidence which they are entitled to in a Court of judicial inquiry. I understood that some of not all of these gentlemen asked Mr. Ritchie some time ago if that could be withdrawn, and his reply was, I am instructed, that he had not been asked to the question then—and I take it that, this statement being made sincerely and solemnly under oath in the Governor's Court, Mr. Robertson very well withdrew from it. If he was withdrawn from it, then I say that the difficulty of the Mount. Kisco case is very much reduced, and that position in this inquiry is not actually shared if Mr. Ritchie can say now that he does not in that statement implicate any dishonesty to Mr. Robertson or to the Mount. Kisco during in connection with him, but of these statements I have mentioned the Company that the very great difficulty they are in that one member of the tribunal should all here, he having found that opinion as to their conduct before they come into the box at all.

Then again, with regard to the case of the Company, Mr. Ritchie himself expressed the opinion. "I am satisfied it was caused by an employee of such-and-such." Now, as we understand that the Company hoped, although the statement was not called on the part of the Commission, the view of the Company will be that, this middle was not issued entirely by the employee of such-and-such. They have evidence to that before the Court that could not play a part in the actual deliberations that would the death of these men on that day. Then again Mr. Ritchie is an awkward person, but, upon your facts that the Company feel that if their case is surrounded they have to produce an expressed opinion of Mr. Ritchie's which he came to before this inquiry began, and under those circumstances they feel that they have not that security which they have a right to expect from my tribunal if they come before this Court to give their evidence with these statements unqualified and unqualified by Mr. Ritchie. I feel in a very difficult position in dealing with the matter at all. I am satisfied it is a matter for me to feel that the action of the Executive, this is no place to regard it of that, but because there are certain facts within in the Executive, but known to Mr. Ritchie himself, which, we feel if put quietly and calmly before Mr. Ritchie, will influence him to see the difficulty he is in and so on, in coming before this Commission on this inquiry, and we appeal in the name of humanity which satisfies every man, and when he address the difficulty we feel in coming before this tribunal to give evidence in regard to this inquiry under those circumstances we hope he will see his way, without any loss of dignity to himself, to withdraw from the inquiry, and allow the inquiry to be conducted by the other two members of the Commission. We feel it is a duty to ourselves, partly and out of regard to the tribunal itself, that we ought to appear here and be represented on this matter, but, so to the other nations, we feel that we ought to bring these matters before Mr. Ritchie and appeal to him as a fair play, which I am sure contains him, and ask him whether he cannot quickly decide this statement which allows the statement to be brought before the Commission, or to retire altogether. If he cannot do it in any way a very great load will be taken from the minds of the Company and from the minds of these persons who are to be called by the Company. We are prepared to appear here and to go on, but we wish first of all that this question shall be considered by Mr. Ritchie. I can only say that in regard to the fact has never been successful, and I only hope that Mr. Ritchie will see his way to remedy this position, and he will not act a moment which will be tantamount to danger to the life by conviction of justice.

If Mr. Ritchie has a matter which, as Chairman of the Commission, I may say in a more entirely personal relation, Mr. Ritchie and Mr. Company, but in this case, I feel I must speak on the matter whether Mr. Ritchie does or does not wish to go on playing.

First of all, as to whether the Commission can be considered without Mr. Ritchie as a confidential member of it. I certainly think, and Mr. Ritchie has agreed with me, that in the opinion of the Commission it certainly must be said to be considered in the only sense of two of the Commission, and I should certainly refuse to go on with the work of the Commission if Mr. Ritchie thought it not in evidence to act as a member of it. It may be at times that it is within the terms of the Commission that the Commission is a body as to the Commission will be decided by the conclusions of the Commission. But the action throughout, the consideration must relate to the action and consideration of the three Commissioners—and this would be entirely a separate matter of it were so constituted—I mean it would be, not in fact, but in the opinion of the public, a separate Commission if it did consist only of myself, should be independent of all influences or temptations or bias, and known to be so, and of a gentleman who is just to decide free from all bias as I am, but whose complexion puts him in the position of appearing to the public generally as if he were probably have an inclination towards one side. That, apart altogether from that question, the question is to whether the Commission could possibly be said to be a body if Mr. Ritchie were to retire from it. I might mention—and I think my colleagues will frankly mention me mentioning that fact—that I have had occasion, because of a letter written to the Commission publicly by the Company, to very carefully consider the very question of whether or not in the face of what has happened and in the face of what I have myself observed Mr. Ritchie is or is not so absolutely impartial and unbiassed a member of a Court which has to deal with the rights of every one equally in a Court, popular or far from any kind, and I may say that, having looked into the matter and very carefully considered it, I know none to the conclusion that it cannot possibly be suggested for a moment that Mr. Ritchie is or is not such an absolutely fair member of the Court as that he should not become a member of the Court. I will not go into all the particulars of my consideration of the matter, but I will simply say that, very carefully considering matters, looking into the fact that Mr. Ritchie was compelled to give evidence and did so as evidence, looking into the fact that he holds a certain position relative to the matter, looking into all the circumstances of the case, I have concluded and have stated myself that Mr. Ritchie is a perfectly fair, independent, unbiased, unprejudiced and unimpaired member of the Court, and even if he had been to form some opinion in the course of the investigation which he had to make in the past, I have come to the conclusion that he, if he should have evidence which would fairly satisfy him that that conclusion is not correct, will be perfectly ready to form what on the face of the evidence would appear to be a reasonable man to be a proper conclusion. Under these circumstances I trust say that I do not consider that, as Chairman of this Commission,

Commission, I've heard even to ask Mr. Hatcher to justify himself on this matter. I only say that, if Mr. Hatcher wishes to say anything or wishes to take any course, or to adopt any line of conduct, that is entirely a matter for himself, but I do not put that in an evasive and unpleasant position by, as Chairman of the Commission, even suggesting to him that he should express any intention or any opinion. As far as I am concerned and so far as Mr. Hatcher is concerned, we are perfectly content to go on with this inquiry with the tribunal which the Executive has thought fit to constitute, feeling sure that every justice will be done by every member of the tribunal towards every person and every set of persons whose future status as white men conduct may be affected by the conclusion to which the Commission will ultimately arrive.

20. Mr. Hatcher: I do not wish to take up the time of the Court by any lengthy reply; but I just wish to state that on this matter which has been brought before the Court by Mr. Wade has been brought under my notice before and also under the notice of the Executive. I have carefully considered the matter, and I presume the Executive has also done so, and after careful consideration I have come to the conclusion that I can sit on this investigation with a perfectly fair and open mind. I shall be quite prepared to make the recommendations which I may think fit to make, based entirely on the evidence which is given before the Commission for their consideration, apart altogether from any opinion which I may hold or may have formed, and as one of those facts I have mentioned that I shall sit.

21. Mr. Wade: May I state, only in fairness to the Court itself, that after the expression of opinion by Your Honor and Mr. Hatcher the Company feel greatly relieved with regard to their position before this Court. Of course they had not had the opportunity of having your expression of opinion before this commission, and now they have had it I may say they are perfectly willing to put their case before this Commission.

22. Mr. Hatcher: I am very pleased to hear you express that final opinion as the conclusion to which you and your clients, the Company, have arrived.

Now the evidence will be called. Mr. Loughty, there are certain witnesses whom you asked to have subpoenaed. They have been subpoenaed and I presume some of those subpoenaed for today are now present. The usual order will be made for the production of all witnesses.

23. (All witnesses present were ordered out of the Court.)

24. Mr. Loughty: It occurred to me, Your Honor, this morning that it might facilitate the conduct of the Commission, if I mentioned at this stage certain persons whom I think the Union mentioned as the respectfully, make to the Court as to what Mr. Wade and Mr. Hatcher might have to say to the inquiry presented, and also some general recommendations from the employees of the Mount Kembla Colliery. If they were heard now on a general statement from me it might not be necessary to call witnesses to support some of these. They might be agreed to. Your Honor will have an objection to that?

25. Mr. Hatcher: No, certainly not.

26. Mr. Loughty: I would like Your Honor to direct into the witness statements that are made by the union as a body from some particular recommendations that are sent to me by the Kembla Lodge, representing the employees of Mount Kembla Colliery.

The recommendations as from the Union are these:—

1. That the Coal Mines Regulation Act should be amended to provide that all Managers, underground, deputies, and foremen, should hold certificates of competency given by examination before they be allowed to occupy any of these respective positions.

2. That they should also have the prescribed equipment, in addition to their certificate by examination.

3. That the Inspector should be vested with an absolute power to order the use of undergrounds whenever they may deem them necessary.

4. That all railways be restricted by means of fire and that restrictions by means of a barrier be absolutely prohibited.

5. That all waste workings should be absolutely sealed off, and in case of any questions from the waste work matters should be supervised by competent men to check their movements.

27. Mr. Hatcher: I understood you to mean not "in case of" but "for fear of."

28. Mr. Loughty: For fear of "We ask for an absolute sealing off."

29. Mr. Hatcher: Of course it would grammatically be according to the interpretation of the language, it would read as if you had to wait until there had been a blowing out of a stopping, had you mean for fear of the blowing out of a stopping?

30. Mr. Loughty: Yes, so that the statement, if there should be any, shall not come in contact with any trouble.

31. Mr. Hatcher: Just read that again, the last part.

32. Mr. Loughty: That the mines be surrounded by return air-ways, to carry off any such explosions. (Interrupted.)

33. Mr. Hatcher: It seems to me, that all waste workings be absolutely sealed off and be also supervised by return airways?

34. Mr. Loughty: Yes Your Honor, and that the return airways shall not in any case come in contact with any trouble. (But we to say, but to pass over it, but to interfere with the free intake.)

35. Mr. Hatcher: It is rather difficult to say what that means. Yes, we return and as intake cannot be used again in any case, but you may have a return, which is reliable and an intake.

36. Mr. Loughty: Perhaps I might mention that there appears to be some confusion that in Kembla when the return airways did actually come in contact with the intake.

37. Mr. Hatcher: Do you mean the underground as the return?

38. Mr. Loughty: No, that the return airways actually interrupted the intake away before it reached the mine.

39. Mr. Hatcher: What you mean really is that the separation between return and intake should be, as it always ought to be in all cases, a thoroughly reliable and good one. Of course any kind of separation between them may be blown out. That cannot be prevented. It may in some cases be blown out by an explosion, but it should be of a substantial nature, you mean?

40. Mr. Loughlin: Yes, that it should be so strict that there cannot be any except a very remote possibility of the miners coming into contact with the cables.

41. Mr. Howe: In point of fact it might be taken to mean that cables and miners always should always be suitably separated.

42. Mr. Loughlin: I think that would do, Your Honor. Of course, the whole thing is subsidiary to the chief question for the scaling off.

43. Mr. Howe: I think that there are only a general indication of what Mr. Loughlin is going to suggest by analogy, and that they will be subject to modification after his statement has been given. I was going to suggest that Mr. Loughlin might find his convenience in the Secretary, who might have them typed for us.

44. Mr. Howe: When Mr. Loughlin has gone through them in a general way very likely the other two representative witnesses will be able to see whether in a general way they agree or disagree with the suggestions.

45. Mr. Loughlin: Yes.

46. Mr. Howe: We will be able to judge how far they are supported by the evidence that is brought by Mr. Loughlin.

47. Mr. Loughlin:

6. That with the exception of prospecting drives all plans be provided with cut-throughs not more than 30 yards apart.

7. That an extra supply of safety-lamps and accessories equal to one third of the number of persons employed below ground be kept constantly in good order and ready for use.

48. Mr. Howe: That is to say, for the number of persons employed there should be one and one-half safety-lamps ready?

49. Mr. Loughlin: Yes, in a surplus supply to meet emergencies.

50. Mr. Howe: That is where safety-lamps are used on the mine.

51. Mr. Loughlin: Yes, safety-lamps, or general safety appliances. Your Honor will see that there is provision for structures and things like that. It is granted. The most improved safety appliances—
(Interupted)

52. Mr. Howe: I thought you meant as first—perhaps Mr. Robinson may have thought so, and Mr. Robinson might think now that you spoke of safety-lamps and appliances relating to safety-lamps, but you speak of appliances generally of all kinds.

53. Mr. Loughlin: Yes, connected to the safety of the pit.

54. Mr. Howe: Perhaps you might express that better?

55. Mr. Loughlin: I can emphasize that with the evidence of the miners.

56. Mr. Howe: But you can easily see that a risk of that kind having relation to safety-lamps differs so much from a risk of that kind having relation to other things—perhaps for instance—that it is not expedient to mix the two up together. For example, you would not want one and one-half number of structures—that would be useless, but it might well be that you would want one and one-half number of safety-lamps.

57. Mr. Loughlin: I quite see that. Your Honor will see that it is open to question by the Commission if it is a mere suggestion that was limited to see the mining in a very rough form. Now, these practically exhaust the recommendations sent to me in writing from the Delegation Board. What I am going to give you here about mining is from the Union, but not from the Delegation Board.

8. Regarding the watering of the roads, that the traveling roads as well as the haulage roads should be properly watered.

Now, the next recommendations came spontaneously from the Mount Kembla Lodge through their Executive—

9. That the confidence of the Manager, Mr. Egan, should be re-evaluated in view of the evidence given at the inquest and of other matters as he brought before the Commission.

10. That Mr. Egan should be compelled to give more personal care and attention to the management of the colliery.

11. Mr. Howe: There you have a comparative without the position, Mr. Loughlin, as we do not exactly know what that name.

58. Mr. Loughlin: Well, the Commission might see their way to freeze a clause providing that at least two or three times a week the Manager should inspect the mine workings of the colliery as far as his personal business will allow, instead of, as I understand in some cases happens, perhaps, being absent for a week or two and leaving it to the under men.

11. An amendment of General Rule 4 which provides for inspection, Your Honor, but makes an exception that the inspection need not be with the locked safety-lamp, except when you have been informed there within the prescribed twelve months. Mr. 44: that the inspection with the locked safety-lamp should be in all cases—getting out that exception from the General Rule 4.

12. That there should be a monthly examination by the deputy and the District Inspector with the hydrogen lamp, and a special report made in a book to be specially kept for the purpose.

13. That all miners and all employees of the colliery be fully instructed from time to time in all possible means of escape in case of any disaster.

60. Mr. Howe: That is best laid. We can leave that at present as an open question in mine; but it is certainly not an open question at all.

61. Mr. Loughlin: We know at one case of a person who could have been saved if he had known the way out. He took a wrong turning and he was within a very short distance of safety.

Regarding ventilation specifically, we ask for an amendment of Rule 1 in section 43, which reads that 100 cubic feet of air should be forced through for every man, boy, and horse, and—

14. That the words "500 cubic feet of air" should be inserted for every horse. This rule would then read that 100 cubic feet should be provided for every man and boy, and 500 cubic feet for every horse.

15. That all doors should be so constructed and erected as to show of their own motion.

16. That there should be erected double doors on the drives between the main outcrops and returns, and on the main haulage where shifts are passing.

18025 20-4

Your Honor will say that it frequently happens in a pit that one door is open while trucks are passing through and a considerable quantity of air escapes until the trucks have passed and the door is closed.

Q2. *Mr. Moore*: It is what may be called the lost system?

A2. *Mr. Langley*: Yes.

17. That instruments shall be placed at the apertures to determine the variations of heat and air pressure.

18. That a weekly measurement of the air should be taken in each section, and a report sent to the Inspector.

It is only possible now that there be a monthly taking of the air. This House will permit me to read from page 246 of what I have in which we ask that the measurement be made weekly by the mine manager.

19. That the Manager or under manager shall measure the ventilation in least once a week at the right and wrong, and also at or near the face of all the entries, and the measurement of the air so made shall be noted on tickets furnished by the Mine Inspector.

That is, making from one of the Mining Laws of Colorado.

19. That the use of the machines should be enlarged. I understand they are now 3 feet x 4 feet deep.

20. That they should be enlarged to such a size as the Commission may consider necessary.

Q3. *Mr. Wade*: What height would you like them?

A3. *Mr. Langley*: The height is specified—6 feet.

20. That the Coalminers Act should contain a clause forbidding a black list being kept of employees and punishing the improper prevention of discharged persons obtaining employment.

If Your Honor will permit me, I will read up that the Act for the protection of discharged employees Mining Laws of Iowa, passed in 1906.

"Section 1. That if any person, agent, company, or corporation, after having discharged any employee from his or its service, shall prevent or attempt to prevent by word or writing of any kind such discharged employee from obtaining employment with any other person, company, or corporation, except by furnishing in writing, on request, a truthful statement as to the cause of his discharge, such person, agent, or corporation shall be guilty of a misdemeanor, and shall be punished by a fine not exceeding five hundred dollars nor less than one hundred dollars; and such person, agent, company, or corporation shall be liable to penal damages to such discharged person, to be recovered by civil action, but this section shall not be construed as prohibiting any person or agent of any company or corporation from referring in no way, any other person, company, or corporation, setting forth a truthful statement of the reasons for such discharges.

"Section 2. If any railway company, any other company or partnership or corporation, in the State shall exclude or allow any of its or their agents or black list any discharged employees, or attempt by word or writing or any other means whatever to prevent such discharged employees, or any employee who may have voluntarily left such company's service, from obtaining employment with any other person or company, except as provided for in section 1 hereof, such company or partnership shall be liable in civil damages to such employees as prevented from obtaining employment, to be recovered by law by civil action."

I propose to suggest that recommendation by evidence immediately. Your Honor.

Now I think one of the recommendations, except one matter that I have been asked specially to mention this morning. I understand Your Honor, from the President of the Mount Kemble Union that the practice is now in the No. 1 District for the safety-lamp to be authorized to light the flame to see a shot. It is quite true that so long as that is practiced the men are under continual danger, and perhaps that sort of being known men, some steps might be taken to prevent it, so the men feel that while that is prevented, the whole aspect of the safety lamp is disturbed. Instead of using a wire to light the flame, they open the safety-lamp to light it. I am satisfied that that was done by the deputy.

That precisely summarizes the suggestion, Your Honor.

Q4. *Mr. Bruce Smith*: I take it that my friend is going to support all these propositions by evidence or undertake to do so. I think it would be better to the Department and to the Company, speaking for him, if he would formulate these somewhat in the nature of a series of propositions, because they would be rather difficult in their appearance in the text.

A4. *Mr. Moore*: If they were written I would like to clear out as much as possible, and typed and a copy given to Mr. Bruce Smith and Mr. Wade, it would be better. The Commission could have them typed if you have a nice copy in manuscript.

Q5. *Mr. Bruce Smith*: It may be that the Department may fall in with some of the suggestions; it may be that we may be able to get some of the suggestions at this, but unless we have them specifically before us it is impossible to know what Mr. Langley is suggesting for.

A5. *Mr. Moore*: Some of them it would seem that the Government would fall in with and allow that the Company would fall in with, but there are others certainly that the Company would not fall in with.

Q6. *Mr. Langley*: I understand that the problems taken to be typewritten, and that a copy will be made for us next morning.

A6. *Mr. Bruce Smith*: But in that there is no typewritten.

Q7. *Mr. Moore*: Some of them on the face of them want leaving down to a mine company and making such changes. You have evidently not had much time, Mr. Langley.

A7. *Mr. Langley*: Some of them only reached me this morning, Your Honor.

Q8. *Mr. Moore*: Perhaps during the afternoon you could get them into a clear and concise form as possible.

A8. *Mr. Bruce Smith*: By to-morrow morning.

Q9. *Mr. Langley*: By to-morrow morning.

A9. *Mr. Moore*: But on the meantime their not being absolutely received or rejected would not prevent you from making your statements?

A9. *Mr. Langley*: Yes, sir. Right. I ask that I be supplied with a plan of the mine.

Q10. *Mr. Bruce Smith*: I would like to state that before the Council and Jury. Affirmance had a number of telegraphs prepared as that such estimates that were called would deal with one telegraph, which was marked with the name and put away at the disposal of his witness.

A10. *Mr. Moore*: Those are all here.

Q11. *Mr. Bruce Smith*: We shall have a number of black plans here in wall.

16. Mr. Wolfe: The difficulty is the war of the Company is this, that they do not want information about the workings of their men to get about in public. They are perfectly willing to let Mr. Lynch get a plan of the mine for the purpose of the inquiry; and that was done in the Citizens' Inquiry. We asked him there to return it to the Company or the Department, show the inquiry, so that it should not get away to the public.

17. Mr. Lynch: But, Your Honor, I will be making a number of notes on the plan which I do not wish to become known to the proprietors.

18. Mr. Wolfe: A plan which was asked to be considered private would be considered absolutely private when returned to the Commission, and if you wished that it should be destroyed it might be destroyed.

19. Mr. Lynch: Very well. With regard to the plan which I had at the request the sergeant of police inform me that he had it and he will return it to me with your permission.

20. Mr. Wolfe: Yes.

21. Mr. Lynch: Might I also see that I might be furnished with a printed copy of the Department taken at the request?

22. Mr. Wolfe: Yes. [The plan and evidence were handed to Mr. Lynch.]

23. Mr. Wolfe: I do understand that the Commission took the shape of this evidence as having been given?

24. Mr. Wolfe: Yes. That is taken as having been given. Anyone can recall any of these witnesses for the purpose of further evidence, for the purpose of cross-examination, for any purpose, and the Commission will cause him to be summoned if he can be obtained.

25. Mr. Wolfe: Even for the purpose of re-examination?

26. Mr. Wolfe: Yes.

27. Mr. Wolfe: I desire to re-examine Mr. Atkinson. This [the deposition] is a very summarized statement of evidence, and with an important witness like that I should like to re-examine him even if he would cover some of the same ground, so that I take it that there will be power to recall any witness for any purpose, subject to the ruling of the Court.

MR. THOMAS RICHARD MORGAN was sworn and examined—

Examination checked by Mr. Lynch:—

28. Q. Your name is Thomas Morgan? A. Thomas Richard Morgan.

29. Q. You reside at Warren? A. Yes.

30. Q. And you are a miner? A. Yes.

31. Q. Employed where? A. At the Hollands Colliery.

32. Q. You are also the Treasurer of the Hammers District Union, the Hammers Colliery Employees' Association? A. Yes.

33. Q. Do you remember the date of the disaster at Mount Krishna—St. John's? A. Yes.

34. Q. Did you ever possibly get on that evening? A. Yes.

35. Q. On the 23rd day at what time did you reach Knolls Colliery? A. As near as I recollect, about 4 o'clock.

36. Q. And who accompanied you much? A. I could not give you the names of the first party I went in with. We received instructions from Major MacCabe. He seemed to have control of affairs outside. We received orders from Major MacCabe to go down to what they call the old rigger and get on the travelling road and get on to the main tunnel at the old rigger, and travel outside again to the tunnel mouth, so we it we could find any bodies of boys that were supposed to be in the tunnel mouth.

37. Mr. Wolfe: Q. Where is the old rigger? A. I think it is, as near as I can say, about a quarter of a mile in from the tunnel mouth. It is further in than No. 1.

38. Q. But still on the same level? A. On the same level.

39. Mr. Wolfe: Q. Would you be able to recognize it from the plan? A. No, but it was on the left-hand side of that inclined bridge in the travelling road to the No. 1 section, because it coming back over we met Mr. Bellows and Mr. Cate.

40. Q. Was it far on the left-hand side? A. I think about 150 yards.

41. Mr. Wolfe: Q. Is that No. 2 Right? Do you know whether it was known as No. 2 Right?

42. Mr. Wolfe: Q. I do not think there is anything of importance so that.

43. Mr. Wolfe: Q. But we want to understand the evidence.

44. Mr. Wolfe: Q. Up to that time you did not know anything that you regarded as of any moment?

45. A. No. We went out and reported to Mr. MacCabe that we could not find any bodies there that old rigger to the tunnel mouth; and then a report was made that there were a lot of men lying on what was called Mr. Fisk's Flat, or Mr. Fisk's Flat, who badly required assistance to get down out alive. I went in with a man named Alfred Weeks—that was in the shaft section—we went down the travelling road and got on to the Mr. Fisk's Flat. There were a lot of men, some lying about, unconscious, and one or two of them were dead. We brought out between a man named John Price and returned again shortly afterwards and found that all that were left there were dead. We brought on the body of William River. I did not go in any more that night; in fact I did not go in any more until about eight or nine days after the explosion.

46. Q. Can you fit about the time that you first reached Mr. Fisk's Flat? A. I think it would be about 10 o'clock. I know it was just dark as we came out of the tunnel mouth with Price.

47. Q. And about how many men were there lying who afterwards were dead? A. Well, I noticed two bodies lying in the same position—they were alive when I was in the first time and died the second; but the others that were alive I think had mostly been brought out. When we were going in we passed some of them (the deceased) bringing them out.

48. Q. What were the names of the two who were dead? A. I do not know the names. One was lying on a log and another was now lying up against the rock side.

49. Q. Did you observe whether any of those persons found in their bodies had been at all burnt or scorched? A. No. They all appeared to me to be a few men suffering from the effects of slow sleep.

50. Q. It was the first occasion on which you went in? A. At once as we took Price out we went straight.

Pratt—T. B. Wright, 6 January, 1903.

- straight back again. That was when they were dead. I did not go in again until about nine days after the explosion.
- 115 Q And who accompanied you then? A Mr. Maguire, Mr. Ritchie, a man named Hag, in the Colliery, and Morrison, Adam Frost, and one or two others whose names I do not remember at present.
- 116 Mr. Wade Q With Jonathan May one? A Yes, he was one.
- 117 Mr. Lynght Q Which direction did you take on that occasion? A In the No 1 tunnel.
- 118 Q Now, can you tell me what you observed on that occasion—anything that would throw any light on the cause of the disaster? A We inspected all the open workings. (Intercepted.)
- 119 Mr. Wade Q This is when you went in there? A About nine days afterwards.
- 120 Mr. Lynght Q You went in making an inspection? A Yes, we went in making an inspection.
- 121 Q Tell us everything that you observed? A We travelled up the main intake to No 1 section, right up to the end of the No 1 level. For a considerable distance up there were some very heavy falls, especially on the eastern side of, I think, the Colliery main air road.
- 122 Mr. Brown Smith Q The other side? A Yes.
- 123 Mr. Lynght (interrupting Mr. Wade) We would a few minutes of the working places—that is Main's, Asker's, and Don's. We would a few minutes of the places. About Asker's place there was evidence of fire: the props were charred, and there was also charred dust on the rock. We were in some considerable time; and we travelled back down the trending road.
- 124 Mr. Lynght Q Can you tell us of any other places besides Asker's where there was evidence of fire to have been passed? A In the last heading on the main back heading, just about Main's place, the dust seemed to be charred on the rock side.
- 125 Mr. Brown Smith Q It would be desirable if the witness could mark it on the things, if there is anything important depending on them. He could mark it with a pencil on the plan.
- 126 Mr. Lynght Q This is only corroboratory evidence of what already appears on the depositions as evidence of fire and fume. Of course, Your Honor, in the absence of any direction from the Commission as to the extent or the scope of the evidence I should offer, I should have to go on offering evidence until Your Honor stops me.
- 127 Mr. Wade Q We have a great deal of evidence both of the particular signs of charring and smoking and of fume on all the parts of the mine.
- 128 Mr. Lynght Q It is not to me that the evidence given by the Chief Inspector seemed to show the evidence of fume and charring was shown any evidence I could bring; and in the absence of any positive evidence I do not know whether I should be justified in taking up the time of the Commission in continuing it.
- 129 Mr. Brown Smith Q If Mr. Lynght were going to give evidence of any important facts it would be better to have it marked on the plan.
- 130 Mr. Wade Q I am important detail of fact.
- 131 Mr. Brown Smith Q Yes.
- 132 Mr. Wade Q Mr. Lynght, if there is any particular fact which you wish to bring forward the witness might wish to put it on the plan.
- 133 (A) I think the Commission adjourned until 2 o'clock.)

RE-EXAMINATION.

- 134 On returning after lunch Mr. W. R. Pratt attended to take shorthand notes of the evidence and proceedings.
- 135 Mr. Wade (addressing Mr. Wade) Do you intend to dispute or controvert, or do you disagree with what Mr. Atkinson says with regard to force?
- 136 Mr. Wade With most of Mr. Atkinson's evidence we agree, but perhaps there are four or five instances where Mr. Atkinson has not agreed. You find in the course of the evidence four instances that there is evidence made of fume being introduced with belatedness, where there was also evidence as to the evidence of force being continuing. I think our evidence will be more detailed on some of these points. With regard to what was seen in No 4 Right our evidence will be more specific on that point.
- 137 Mr. Wade Is it your intention to attempt to fix the original center of force? It might help you to make answer what your contention is if you have no objection.
- 138 Mr. Wade I have no objection. Our contention is that the original force came from the 4th Right, not that there was no evidence of gas or of any fume. That force would be accounted for by a large area of the roof falling down and forcing the air out.
- 139 Mr. Wade You mean that the force originated on the 4th Right, and not because of any explosion?
- 140 Mr. Wade The cause may have been contact with a naked light.
- 141 Mr. Wade That means up the question of force generally accepted with all the circumstances. It is hardly possible to say yes, admit so much as to make it unnecessary to go into the question of the direction and the kind of force, because they are coupled and are associated with the question of heat.
- 142 Mr. Wade The heat, extent, and the cause of the most important upon the evidence of the Commission of all the evidence as to force.
- 143 Mr. Wade As Mr. Lynght is calling evidence as to the cause, extent, and the force of that force, it is hardly expedient to stop him.

T. B. MORGAN, previously sworn, was further examined as under—

Examination as chief by Mr. Lynght continued—

- 144 Q You may announce your evidence with regard to force? A Right up to the main No 1 level the whole of the force appeared to have gone over that portion, and it must have been very great. In the 4th Right opposite the 3d air road— (Intercepted.)
- 145 Mr. Wade Q Where do you mean? A It is near the 3d air road.

- 146 Q. That is a point south, just opposite No 3 Left and No 4 Right? A. Yes. (The witness here searched the map and in his journal.) [Exhibit No 1.]
- 147 Mr. Moore (to A.) Q. You say the force came out from No 3 Right? A. The great centre of force was just at about that point. It appears to me to have shot out in different directions.
- 148 Mr. Moore (to Q.) It shot there apparently? A. Yes.
- 149 Mr. Lynam (to Q.) What else did you see? A. At the back end of No 1 level there was great evidence of force, but along to the left, off No 1, near Arthur's place, I noticed two ships which had apparently been turned over.
- 150 Mr. Moore (to A.) What is the number of ships? A. No.
- 151 Mr. Moore (to A.) No, no.
- 152 Mr. Moore (to A.) Along to the left I noticed two ships that apparently had been driven and one
- 153 Mr. Moore (to Q.) Was one the mast? A. It would be towards that direction. (Witness searched the map and in his journal.) These appeared to have been a cylinder force in the opposite direction coming back towards No 1 level. It was in the golf near Arthur's place that I noticed a strong mass of fire—that is, the force was stopped—was as it appeared to be stopped by fire, and also the mast. I think that a mass of the force that I noticed. We looked in by Arthur's place and towards to Arthur's place two or three times. We travelled in the left of No 1 level and out at a landing and worked on the plan. But the force to the left seemed to be going and past Arthur's place on to No 1 level and out over. The force seemed to go in this particular direction. Then a light gang had the force seemed to have gone out and onto No 1 level and then out over.
- 154 Mr. Moore (to Q.) Do you mean that there appeared to have been a second form after the force that had went towards the mast? A. Yes, there appeared to have been a return force. I think that is all I can say about the force.
- 155 Q. What were the signs of the force that you saw came from the mast towards the out-towards No 1? A. The force was driven in that direction, its back on the water that was standing had apparently been blown in that direction also.
- 156 Mr. Lynam (to Q.) Were there any indications of fire near that head-onward Mast? waiting place? A. No, it seemed to be fairly clear about that spot, there was not such a lot of timber there.
- 157 Q. Were the top of No 1 to the 2nd Right were there any indications? A. There was a house and some ships that had been driven away by it.
- 158 Q. From the top of Mast heading down to the 2nd Right, were there any indications of fire in the Back Heading? A. That is the travelling road.
- 159 Q. Yes. A. There were one or two here which had been driven out over the road.
- 160 Mr. Moore (to Q.) Is it in between No 1 and No 2 road? A. Yes.
- 161 Mr. Lynam (to Q.) You say the force were driven out? A. Yes.
- 162 Q. Anything else? A. Some timber was driven in the same direction. I do not recollect any other indications of force.
- 163 Q. Where was this house that you mentioned—that was its position as regards the 2nd Right? A. It was on the left side of it I remember only of the 2nd Right.
- 164 Is the mast in or on the travelling road? A. Yes, on No 1 mast level.
- 165 Q. And were there any ships near that house? A. I think there were but I am not quite positive.
- 166 Q. I think it may be the house being? A. Its head was facing outwards.
- 167 Q. Do you remember on which side of the house the ships were? A. I think on the right side of it. I did not stay very long when the house was, it was particular. It was not pleasant.
- 168 Mr. Moore (to A.) The house was very dead? A. Yes.
- 169 Mr. Lynam (to Q.) Were there any other indications of force in the vicinity of the 2nd Right that you remember? A. No, I do not think so.
- 170 Q. Coming down from the 2nd Right towards the 4th Right, what were the indications of force on No 1 mast level? A. For a certain distance on the right side, No 1 Right, the force seemed to have gone to for a certain distance and out over as well.
- 171 Q. What did you see? A. Some of the trees had evidently been driven over.
- 172 Mr. Moore (to Q.) You mean the sailing trees were in garden? A. Yes.
- 173 Mr. Lynam (to Q.) How many of these did you notice? A. I think two. They seemed to have been driven in over.
- 174 Q. Was there anything else between the 2nd Right and the 4th Right? A. Nothing else that I remember now.
- 175 Q. Coming from the 4th Right towards the telephone cabin, what were the directions of force there? A.
- 176 Mr. Moore (to A.) This is evidently a perfectly straightforward and intelligent witness but it is not necessary to continue his evidence in this way. Mr. Atkinson has dealt with the matter.
- 177 Mr. Lynam (to Mr. Atkinson) My Walshe has given some evidence of force, and I thought I would supplement it. I purpose asking the witness to say what conclusions he arrived at, and I will hold in reserve the reasons that led him to that direction.
- 178 Q. Are you able to give any evidence as to where the explosion was? A.
- 179 Mr. Walshe (to A.) Ask him first if there was an explosion.
- 180 Mr. Moore (to A.) You can ask if the force was something in the nature of an explosion. After of an explosion is only the direction of it in various directions with very great violence.
- 181 Mr. Lynam (to A.) Will you tell us if you came to any conclusion? A. I am rather in doubt. I think the explosion occurred somewhere about the Mast place, at the end of No 1 station.
- 182 Mr. Moore (to Q.) Did you go further up the Mast? A. Either Mast or the top heading of No 1 level. It travelled most towards Arthur's place. The first explosion may have caused a large fall in the 3d-level post, which caused a lot of matter out and caused a larger fall somewhere about No 4 Right. It forced out the matter. (Interrogator.)
- 183 Mr. Lynam (to Q.) What do you mean by matter? A. Dust and gas—a great amount of dust came out from the top of Mast, and that would give a big bang.
- 184 Q. That is what you mean—what is your other? A. The other is that it may have originated about No 4 Right, through out the Mast to some small light, and spread from there all over that station.
- 185 Mr. Lynam (to A.) I do not think I can carry this witness any further as a matter like this.

188. *Mr. Howe:* I always think it is more simple to put in your own witness on few general questions as you can, and to let the other party cross-examine him after that.
189. *Mr. Lysight:* Now, taking the first of these recommendations—that all Managers, and under-managers, should pass examinations? —
190. *Mr. Bruce Smith:* Does Your Honor think it right that Mr. Lysight should read out these recommendations to the witness, and then examine him on them?
191. *Mr. Howe:* I suppose the witness knows them already.
192. *Mr. Lysight:* You be in one of the Excavator.
193. *Q.* Now, what is your answer? *A.* I think it is only proper for every person, Manager, foreman, deputy, or person to pass an examination. Dependent upon the nature of the work, and they hold a responsible position on a colliery. In fact I take it that the firm of the miners depend more on the experience of the deputy than on the Manager. The deputy is continuously on the colliery. He has to make an examination in the morning before the miners start work, and he should be a very practical man. He should understand the nature of everything connected with his duty.
194. *Q.* As regards the Managers, why should they be examined by examination? *A.* It would be against the mine for the deputy—to see that they are qualified for the position they hold. Unless they pass an examination you do not know their qualifications. They want a practical and theoretical knowledge.
195. *Q.* The same reasons apply to the under-managers? *A.* Yes.
196. *Q.* What about the shot-fires? *A.* The shot-fires, as the mine comes with the deputy. He should thoroughly examine the plans, and see that it is done from you before he fires a shot, and unless he has a knowledge of that class of work, there would be danger attached to his position—and a lot of danger too.
197. *Q.* Do you want an oral examination or a written examination? *A.* I think both.
198. *Q.* Are there any other reasons you advance for that report? *A.* No.
199. *Q.* Another recommendation is that Inspectors be given such absolute power to order the use of safety-lamps wherever necessary? *A.* I take it that that is a fair recommendation. We have instances of where Inspectors sometimes think that safety-lamps should be used, and they come into conflict with the management over the matter. The management do not always put them in when the Inspectors recommend them, although I have never heard of any disaster occurring because of that, but it is better to take precautions before a disaster does occur.
200. *Q.* Have you heard of any instances where the Inspector was desirous of ordering safety-lamps but had not the power? *A.* I have heard, but it is only reported to me that they did recommend safety-lamps to be used in a Colliery.
201. *Mr. Wolfe:* *Q.* Give us the name? *A.* Southfield.
202. *Mr. Bruce Smith:* *Q.* Can you mention any other Colliery? *A.* Both also.
203. *Mr. Lysight:* *Q.* What was the result? *A.* It was some time before they were put in.
204. *Q.* The next recommendation is that all collieries be visited by men of faith? *A.* There are certainly a very modest opinion of visiting a mine. They are not affected so much by the weather as a farmer would be, especially in this locality. A heavy winter gale affects the working of a farm very seriously.
205. *Q.* What other reasons are there? *A.* A fan would be more constant and more to be depended upon.
206. *Q.* Now as regards safety in case of a disaster? *A.* A fan would certainly be the safest in case of disaster, because a huge body of black damp would put a furnace out, but would not affect a fan.
207. *Q.* In connection with the disaster what are the other objections to a furnace? *A.* One objection is that if the fan catches fire, it affects the working of the furnace, and it is some little time before you can get the furnace on full blast.
208. I suppose that people in every part of the mine might be suffocated? *A.* Yes.
209. With regard to the waste workings, do you consider that essential? *A.* Yes.
210. How would you have them sealed off? *A.* By brick stoppings preferably. In a lot of the waste workings where you have the timber passing the old workings the best air is carried over the mine.
211. *Q.* Into the mine also? *A.* Yes, into the mine also.
212. *Q.* What persons would you wish to see of anything happening in these stoppings? *A.* If the old workings would not be so bad if it was towards the return, and the mine.
213. *Mr. Bruce Smith:* *Q.* That is if your suggestion is followed? *A.* Yes.
214. *Mr. Lysight:* Taking the Yeats's gaff, if that had been properly sealed off do you think that would have affected in a great measure the disaster? *A.* I could not care about being quite sure. A fall in a place like that would show me any stoppings. A more modern system would be to work the coal out as far as you could, then you are driving ahead and leaving the old workings as you go in.
215. *Q.* It is recommended that, in the stoppings of prospecting drives, all places be grouted with out through at every 30 yards? *A.* I do not believe in driving long distances carrying the air along with timber.
216. *Q.* What is the objection? *A.* The timber requires a lot of attention, and it is not always tight. In the event of us being 50 or 100 yards ahead, if the fall occurred on the outside of you it would cut off the supply.
217. *Mr. Bruce Smith:* What is the distance?
218. *Mr. Lysight:* Every 30 yards.
219. *Q.* Would the process of cut-throughs afford much better ventilation? *A.* Of course it would, much better.
220. *Q.* What about the extra supply of safety-lamps and respirators? *A.* I think that is necessary. We have only to take the Horst Kewitz disaster for an illustration. When we arrived there we found a number of lamps which were out of order and not kept in proper repair, and there were not the necessary supplies there. There was an enormous quantity of oil and wick. We had to make our own lamps with wicks. I got three lamp-stands, and they were taken out of my hand, the other lamp I took to myself. If there had been a full supply of working lamps there there would have been more men in the pit, and more lives saved. It was only a question of getting the men out who were suffering from asphyxiation to save themselves.
221. *Q.* Do you know how many lamps were supplied to Kewitz? *A.* I should say thirty or forty—

208. How many of them were ready for immediate use? A. I did not see any ready.
209. Q. In addition to the three which you got ready did you observe anyone else getting lamps ready? A. Yes. The whole of the delegation who came from Wilmington got their lamps ready, and some of them got lamps ready for other people.
210. Mr. Rogers? Q. What people? A. The miners' delegation. They were witnesses there.
211. Mr. Rogers? Q. What are the other witnesses that you think should be kept there? A. Besides in connection with safety lamps. You could not keep a supply of witnesses, they keep an ample number of stretchers for ordinary accidents, but lamps are necessary over and above everything else.
212. Q. You mean work and oil? A. Yes.
213. Q. What are the necessary precautions you desire to take with regard to watering? A. I think that the men travelling road should be watered to keep down the dust.
214. Q. Have you observed a dangerous accumulation of dust on the main haulage roads? A. Oh, yes, some of them are very dusty. I think the dust I have seen lying about would be dangerous. It would be a great nuisance to the face of an explosion.
215. Q. Now, regarding the personal situation of the Manager? A. I think the Manager should give more personal attention to a rebury than Manager was in the habit of doing.
216. Q. How often have you seen your Manager looking over the national works? A. There is a new Manager now.
217. Q. Well, the last Manager? A. I should say once in six weeks or three months.
218. Mr. Rogers? Q. You are speaking of your own mine? A. Yes. But that would not apply to all Managers. I have been in a rebury where the Manager went down once or twice or three times a week. At other places I have not seen a Manager go down for six months.
219. Mr. Rogers? Q. With regard to the inspection, and the lighting of safety lamps, do you think the latter part of the rule should be wiped out? A. Yes, it is a practice now, and I think the latter part of the rule should be left out.
220. Q. With regard to the monthly inspection by the Inspectors with a hydrogen lamp, do you think such a lamp would be better for the discovery of gas? A. We have tried the ordinary safety lamp and will discover gas as readily as a hydrogen lamp will. I think some reburies are already getting hydrogen lamps.
221. Q. Now, with reference to restraining the men with regard to the caps from the mine? A. I think the deputies should show the men the caps from the mine upon different occasions, and then in the event of a disaster the men would know where to go, and if one cap was blocked against them they could go by another. The ordinary style is that a man travels one road from the face of his work to his dump, and does not know any other.
222. Q. Where do you suggest that the men should be so instructed? A. At least once a week.
223. Q. With regard to the competency of Rule No. 1 and the allowance of 300 cubic feet of air to a horse, in addition to 100 feet for each man and hat, what do you say to that? A. I think that is necessary. A horse takes up much more air than a man, and it means that someone is to get less air because the horse uses up more air.
224. Q. How much air do you think a horse would use? A. I am not sure.
225. Q. Roughly? A. I should say that he would use about four times as much as a man.
226. Q. Are you aware that in mines in Colorado they provide 300 cubic feet of air for each horse and make no addition to the man? A. Yes.
227. Q. Are you aware that the laws of Illinois provide 300 cubic feet? A. Yes.
228. Mr. Rogers? Q. Give me some English law. A. The Venturers are more advanced.
229. Mr. Rogers? Q. As to two doors on a mine, do you think that is a good thing? A. Yes.
230. Q. Do you know that it frequently happens that the doors are left standing open? A. Yes. I have seen them standing open.
231. Q. And the result has been—? A. I am saying that in the Betty Colliery one door was left standing open. It was a door between two workings, and in one of those workings an explosion was supposed to have occurred. It would cause a great accumulation of gas.
232. Q. In addition to shutting the air? A. Yes.
233. Q. Could the self-closing of the door be easily done? A. Oh, yes. By means of a spring.
234. Q. As to double doors? A. Where there is the door between two workings, if it were left open the whole of the air would be directed, but in the event of there being two doors the second door would prevent the escape of the air.
235. Q. Is that a cheap and easily effected reform? A. Oh, yes. There is not much expense in providing two doors.
236. Q. Now, regarding the supply of instruments at the point for the determination of the variation of level and pressure, do you think there are difficulties? A. Yes, I do.
237. Q. With regard to the measurement of the air—do you think a monthly measurement is sufficient, or do you think there ought to be a weekly inspection? A. I think there ought to be a weekly inspection.
238. Q. As what part of the mine? A. In the return air, and in the return section. As a matter of fact, the taking of the air over the strike goes on evidence of the kind of air circulating in the main parts of the mine, because there may be leakage.
239. Q. Now with regard to the enlargement of the size of the machines—they are now 3 feet by 5 feet—what size would you suggest? A. I think there should be wider.
240. Q. What do you say to 4 feet by 4 feet? A. Yes, I think 4 feet by 6 feet.
241. Q. Could that be properly effected? A. Yes.
242. Mr. Rogers? Q. Is that to hold a lamp? A. I have seen men in one machine, and you have five, and pumps, and one thing and another, there, and you do not feel very comfortable.
243. Mr. Rogers? Q. We have various instructions as to safety lamps being opened and the fans opened by the safety lamp—is that dangerous? A. It is very dangerous. It is as bad as using naked lights. A miner might examine a mine to see if there were any gas in that particular part, but I think the practice itself is dangerous.
244. Q. Now with regard to this suggestion as to dismissed employees, do you know of your own knowledge a man where a miner was prevented from getting work in one Colliery or where a letter was sent? A. I know an instance of that kind.

- 727 Mr. Wade: I think it would be better to have some positive evidence on this matter.
- 728 Mr. Morgan: Is this what you know of history, or do you know it of your own knowledge? A: I was dismissed from a military prison.
- 729 Mr. Morgan: Then you know it of your own knowledge very well?
- 730 Mr. Wade: I would not whether the matter comes under the scope of the present Commission. It is a matter which can be established before an Arbitration Court. There was an Arbitration Court dealing with this case, but no honest dealing about it. The Commission is to take suggestions for making the working of mines more satisfactory, but the question of a black list between employer and employed cannot carry out that object.
- 731 Mr. Morgan: I do not doubt whether this question does come under the scope of the Commission; but it is possible that it may. There is one argument that it may come within the scope of the Commission, and we will not exclude it. At the same time I cannot be obliged to draw the line as far as possible, because we do not wish to stretch this inquiry into the matters that other Courts have to deal with.
- 732 Mr. Morgan: The point is that men are afraid to report to the mine authorities, because if they do they are dismissed and cannot get employment in the same district.
- 733 Mr. Morgan: You mean that the men who make reports are not so favourably treated by the authorities?
- 734 Mr. Morgan: You may tell us what happened in your own case? A: I was dismissed from a coal mine.
- 735 Mr. Wade: Q. Tell us the story. A: The following.
- 736 Mr. Morgan: Q. What were you dismissed for? A: It was over the question of the payment of the wharfmen. They wanted me to come out and stand by the men, and I would not. I went the next afternoon and got a job at the North Wharves. I started work the next day, and the wharfmen, who were named Williamson, told me about the third or fourth day after I started, that I was very lucky that I got a start there. I said, "How is that?" He said, "The day after you started, the Manager got a letter asking him not to start you."
- 737 Mr. Morgan: Q. How many days was that? A: About nine days ago. Commence like that do not come to get every day.
- 738 Q. Were you dismissed? A: Apparently I got in ahead of the note.
- 739 Mr. Morgan: Q. Do you know that in many cases men are afraid to report small defects in the management of a mine for the fear of getting dismissed?
- 740 Mr. Wade: I object to that question. It is only something the witness may have heard told.
- 741 Mr. Morgan: That is a thing that happens everywhere. It is only human nature. Such things have happened ever since the beginning of time, and I do not see how it can be human nature if a man is in a life exposed to criticism, and it is the habit of pointing out defects—we need not say it is a mine, but say in the building gear of a building in Sydney—the way you get away from it. I do not think it is necessary to go into the evidence of truth of such a thing as that.
- 742 Mr. Wade: They are bringing forward specific instances of what is taking place. They will be used as arguments for the making of proposals to get out these things taking place in the future. We should have something to go upon, so that we could investigate these statements or qualify them. In the first place, there is a difficulty in finding out the man referred to. It is a complaint made against the Manager, and, if true, it is not very creditable to him.
- 743 Mr. Morgan: I will suggest first Mr. Morgan should not go into such serious matters, because it is only evidence of self-interest. It can be shown that in other parts of the world it has been found expedient to legislate to get away from this kind of thing that will be better evidence.
- 744 Mr. Morgan: Q. Are you aware that one of the Mining Laws of Iowa, upon page 21, of "Aches" is as follows:—

An Act for the protection of discharge employees, and to prevent blacklisting. Approved April 19th, 1919.

Sec. 1. That any person, agent, company, or corporation, who has signed in writing any employee from his or her services, shall prevent or attempt to prevent by itself or by means of any kind a discharged employee from obtaining employment with any other person, company, or corporation, except by sending an express or registered letter or by the method of discharge, such person, agent, or corporation shall be guilty of a misdemeanor, and shall be punished by a fine not exceeding \$500 nor less than \$100, and such person, agent, company or corporation shall be liable to prosecution to such discharged person, to be recovered by or for him, but the discharged man shall be entitled to producing \$1000, or in the event of his company or corporation being otherwise, in writing any other person, company or corporation, sending him a copy of a statement of the cause of such discharge.

Sec. 2. Every company, partnership, or corporation, in this State shall address on a new copy of its or their names to black list any discharged person, or attempt, by word or writing, or any other means whatever, to prevent such discharged employee from obtaining employment with any other person, company or corporation, and any such company, partnership, or corporation shall be liable to be liable damages to such employee or persons from obtaining employment, to be recovered by him by legal action.

Now, do you think that we ought to have an equitable provision of that kind in any new Coal Mining Act? A: Yes, I think the provision is a very fair one.

Continued by Mr. Wade:—

- 725 Q. On the day of the disaster—11th of July—nearly every man was in the mine? A: Yes, I believe so.
- 726 Q. And all the accidents were caused at the Court down here? A: Yes.
- 727 Q. And everything like two hours elapsed before anything in the way of assistance could be given to the men down there? A: Yes; that was owing to the distance away.
- 728 Q. The men partly to give assistance were the men who went from the Arbitration Court? A: Yes; I believe they were.
- 729 Q. And people were naturally very upset at the time? A: It did give them a bit of a shock.
- 730 Q. And when the men returned to work, every man did his best to save life, did he not? A: I would not say that.
- 731 Q. Tell me one man who did not? A: I cannot say names. There were no prosecuting parties; every man seems to have gone to work. — (Interposed.)
- 732 Q. When do you mean by work? A: It seems to carry out under the king or the devil.
- 733 Q. I suppose that without going into the mine for coal, but still where the bulk of the men would be, and, therefore, you were not able to rescue them? A: No; we could not.
- 734 Q. It took up time finding that out? A: Yes.
- 735 Q. Now, with regard to the safety lamps you speak of which were out of order, as far as you know,

except the lamps used by the deputies for inspection,—and, safety lamps were not heard of at Mount Kemble for many years, at all events? A. They had not been used so far as I know.

280 Q. Since you have been in the district—any, nine or ten years? A. Firstly well thirty years, I think.

281 Q. And I suppose you know that there has been no report of gas for more than twelve months before the disaster? A. I do not know when the last report was made with regard to Kemble.

282 Q. And you did not have the record read out at the Coronor's Court? A. No.

283 Q. And is it not a fact that she has thought any one thought of was an explosion at Mount Kemble?

A. It would not be the last thing that I would think of with regard to my Colliery.

284 Q. Did you ever think of it as being likely? A. I would think an explosion as likely to occur at any Colliery.

285 Q. Do you mean likely or possible? A. Possible.

286 Q. An explosion at Mount Kemble—it would not be probable? A. I would not say probable, I would say possible.

287 Mr. Gwyddel. Q. I do not know whether this is evidence with regard to the work at Mount Kemble—did you ever work there? A. No.

288 Mr. Gwyddel. Q. Were you here at the time of the accident? A. Only the last day. I was called, but did not give evidence.

289 Mr. White. Q. Were you here before that? A. I only remember being here on the one day.

290 Mr. Gwyddel. Q. Were you inside the Court before you came to give evidence? A. No, I do not think I was. I was not anxious to give evidence, or to come the day I did come.

291 Mr. White. Q. Two topics about the safety lamps being opened to fire shots as being a dangerous thing. Do you know that the Act provides that where safety lamps are used the shots are only to be fired by some specially appointed person? A. Yes.

292 Q. A witness is not allowed to fire them? A. No.

293 Q. The ground has to be cleared, the dust swept off, and, if necessary, the place has to be watered? A. It should be.

294 Q. And every precaution has to be taken to remove any gas and to remove the dust? A. Yes.

295 Q. Do you know Rule 10 subsection 20? A. Yes.

296 Q. That safety lamps shall not be subjected to opening at the lamp stations or for firing a shot, in accordance with previous knowledge detailed,—do you know that Coronor's Rule? A. Yes.

297 Q. Now, with regard to the number of shots—any, as a rule, there are not more than three between a passing day and the risk? A. I do not think that is a general rule.

298 Q. Are not the number of shots on 18 or 15 yards in each shaft? A. I should think so where there is no room to stand between the shafts, and the risk, they should be each 30 rods.

299 Q. That is what the Act says. If there was room for standing between the shafts and the side of the pit it is each 30 yards. What is your reason for saying that the number should be larger? A. Because when there are a lot of men together you cannot crowd into one place, and if they were bigger there would be better room.

300 Q. Do you know of any accident that has ever happened in the South because of this? A. Yes, but it is a long time ago. I know that I was told over a man.

301 Q. Were there men in that mine? A. I do not know what there were.

302 Q. Were they employed? A. I think they were employed.

303 Q. It was only one man, and not several men crowded into one mine? A. No.

304 Q. There was no room between the shaft and risk? A. No.

305 Q. And there was no mine? A. No.

306 Q. With regard to having instruments at the top of the shaft, do not you know that they keep instruments to record the temperature and the pressure at the feet of the shaft? A. I have not seen them.

307 Q. Nothing at all? A. I think I saw a water gauge.

308 Q. What does that tell you? A. The pressure.

309 Q. If you have not got a furnace you would not need an instrument for the temperature? A. In the event of the furnace being exploded I do not think they would be absolutely necessary.

310 Q. What are you asking for now that you have not got at present? A. We are asking for these instruments.

311 Q. You only refer to reflectors that have lanterns? A. Yes.

312 Q. There is a thermometer kept at the colliery? A. Yes, at the pit top.

313 Q. What do you mean by the pit top? A. The pit top is the surface.

314 Q. Is there anything kept at the feet, at the bottom of the shaft? A. I do not know. If they are already there then this provision is unnecessary.

315 Q. Is it not a fact that the mouth of the shaft at Mount Kemble is at the top of the mountain, and would take a long time to get to? A. I think they are at the bottom.

316 Q. I am talking about the lanterns? A. They are kept at the bottom.

317 Q. Are not these instruments kept at Mount Kemble and Mount Pleasant? A. If so, they are sitting up in what we draw.

318 Q. Now, as to the door being left open at Bally—do you say you saw the door left open? A. Yes.

319 Q. Did you do anything? A. Yes, I closed it.

320 Q. This would not have caused an explosion? A. No.

321 Q. And you restored the ventilation current? A. Yes. One thing for the cause of that accident was that a door leading into the Western district—[Interposed].

322 Q. The door you saw open was closed and the ventilation restored? A. Yes; and the deputy complained that it had been left open by the night shift. He came in the next morning found it open then.

323 Q. How many years ago was that? A. A few days before the explosion in 1895, I think.

324 Q. You got for 500 cubic feet of air for each horse per minute? A. Yes.

325 Q. When was the disaster then? A. Two or three weeks ago.

326 Q. Do you now know that the whole matter was gone into by the Royal Commission before the Coal Mines Act was passed? A. I do not know.

327 Q. Do not you know that the whole thing was discussed? A. Yes.

328 Q. Did not the Commission propose of what is in the Act now? A. Yes. It is probable that if I had given evidence I should have told them what I am saying now.

335. Q. Do you know of any instance where the provision of 100 cubic feet of air per minute to each man, boy and horse has not been largely to the detriment of the men? A. I am not aware of any instance; but, still, there would be a danger in the supply where the men are in a house or there.
336. Q. Would not increasing the supply of air to the mine considerably increase the cost of the ventilation? A. I do not think so. I think that at the big collieries—such as the Metropolitan—they get a big supply now.
337. Q. Do they not get 100 cubic feet only? A. Or as much more as the Inspector may desire.
338. Q. Would it not mean an increase in the plant and also larger fans? A. I do not know of any colliery that would have to go to the expense of that.
339. Q. Now, when the Manager is going down the mine, does not the deputy represent the Manager? A. Yes, in the absence of the manager.
340. Q. And the night deputy represents the Manager? A. Yes.
341. Q. In the daytime you have the day deputy at your place at least twice a day, do you not? A. He visits at least twice in a shift.
342. Q. He often visits it more, does he not? A. No, and he might once one shift.
343. Q. That deputy can direct the mine as far as where he can work the coal? A. He does it.
344. Q. He directs the miners as to keeping the place safe? A. Yes, that is part of his duty.
345. Q. Does he do it? A. Yes.
346. Q. In addition to the day deputy, is the underground manager there? A. Yes.
347. Q. Is he not the same underground for the purpose of direction? A. Yes, and being there, he would direct you how to work the place.
348. Q. Has not the deputy the same power as the underground manager? A. I think the underground manager has the power.
349. Q. Has not the deputy that power? A. Only in the absence of the manager. If the manager comes round you take your instructions from him; if he does not come you take them from the deputy.
350. Q. Do you know that the Manager has no interest in all surface work? A. He has men in charge of the surface.
351. Q. But he has to supervise the work? A. Yes.
352. Q. Does he not supervise the office work? A. No, he has clerks.
353. Q. Ask you does he not supervise it? A. Yes.
354. Q. Is not the Manager frequently away from his office as business? A. Perhaps once a week.
355. Q. Were not all the Managers away about the Arbitration Court recently?
356. Mr. Warner: I do not think the witness knows very much about this question of management.
357. Mr. Wade: He knows as much as any other man on.
358. Mr. Warner: From the position which he is in I do not think that he can know very much about the matter which you are now raising him about.
359. Mr. Wade: Very well, Your Honor.
360. Q. Now with regard to the entrance of the road, you suggest that the travelling road should be well-lit so that every man or boy if they are dusty? A. That is if they are dusty.
361. Q. No road goes down the travelling road, does it? A. Of course in some places the travelling road is the haulage road as well.
362. Q. Where there is a travelling road—is it not simply for the men and horses to go in and come out by? A. That is correct.
363. Q. Under these conditions, where there is no coal taken along it, is it necessary to water it? A. Yes, it is dusty.
364. Q. What makes it dusty? A. The wind is very bad here.
365. Q. Is that the same kind of dust that you get in the haulage road? A. It is free of anything.
366. Q. Is it of the same character as the coal dust? A. Yes. It is ground up step fine. It is finer than the road dust.
367. Q. Now in the course of your experience did you ever hear of an explosion going down the travelling road? A. It is quite possible that an explosion could travel down the travelling road.
368. Q. At in the waste workings? You say that the roadway from No. 6 Right is to No. 1 main travelling road and a means of escape?—now the road that passes through the travelling road and into the main level? A. Yes I say I think so.
369. Q. Do you know that the 25-see guaf had not fallen in? A. I do not know.
370. Q. You would not send off a mine until the road had fallen in, would you? A. Yes, as soon as the place was finished.
371. Q. When was it finished? A. When it is worked out.
372. Q. How long is it that the road falls after it is worked out? A. Sometimes directly afterwards, it all depends upon the depth of the mine also.
373. Q. There is no all round this guaf in these mines? A. At least on No. 1 portion.
374. From No. 5 Right down to No. 2 Right does the returning air go round there? A. Yes, it does.
375. Q. At the top of the north side of the 25-see guaf has it not been sealed off? A. It is not shown on the plan.
376. Q. Do you see any opening on No. 1 Right? A. They are apparently working up to the guaf on that side.
377. Q. Do you see anything wrong in this system—that is driving a head right up to the entrance and of the 30-see guaf towards the West? A. I do not understand you?
378. Q. Supposing the bands are down and driven made up to the face and then they work the pillars going back to the travel road then there any objection to that system? A. No; but then they are not doing it.
379. Q. Taking the 25-see guaf and clearing the head first of all to the face and then going back towards the travel road? A. There is nothing wrong about it, if they do not go back again.
380. Q. There are any connections between the workings and the 30-see guaf? A. There is nothing to show. They are not working.
381. Q. The only possible way No. 5 Right? A. I see there is no opening.
382. Mr. Wade: Q. You are taking one pillar and I am taking another, it is no coal going on. You do

- do not know how the 35-acre gulf was worked out of your own knowledge? A. No. I only know that they are working toward it at the present time. As far as I know it may not be worked out at all.
390. Q. Is it not a desirable thing that when a *gulf* has become a waste you should be able to create it at different points around that waste? A. That is, if you have the whole of the working stretched, not have a good amount of air going through it. I don't think it would be down the river.
391. Q. What would you have? You say you would have them stretched? What system do you prefer? A. I would like the old workings to be thoroughly stretched and the air to go to the return.
392. Q. You do not allude to the statement that the workings should be stretched? A. Either system would do for me. Unless there is a perfect system of ventilation I think it would be better to stretch them off together.
393. Q. Of course, it is a waste like that of the 31 acres it would be impossible to stretch that? A. No. When the roof falls, does not the material get squeezed up to the roof? A. Not always. There is always an opening above it.
394. Q. Just with a tendency of a mine to go on filling up until it gets filled altogether? A. I have been over several for myself, but never saw them filled up yet.
395. Q. You do not know that? A. No, it is not an experience.
396. Q. Are there not several falls which take place—one first, the second, and even a third? A. I do not know that.
397. Q. Do you know there are two falls? A. There may even be a dozen falls.
398. Q. Do you know that there is one fall? A. It depends whether the whole thing goes away in a body. If it does then there is only one fall.
399. Q. Now, as to your examination one day after the disaster. How long did you spend in that area to the left of No. 1 main level—the area in which Aden's place is? A. A couple of hours.
400. Q. Did you go thoroughly over it? A. Yes.
401. Q. Did you go up to the edge? A. Some of the party did.
402. Q. Do you know where the 4th Right is? A. Some of the party did, but they were drawn back by the black smoke.
403. Q. Did you go over to the edge of the waste? A. I was about 30 yards off it.
404. Q. Did you see a big timber stack lying on the road? A. I believe I did see something of that.
405. Q. Was that out on the outside side of No. 3 Right—was it not over by No. 3 Left? A. I do not know the locality of it.
406. Q. Was it out on the outside side of No. 3 Right? A. I think it was.
407. Q. Did not that appear to be blown out? A. It was pretty well scattered about in all directions.
408. Q. Was it not used to support a place in the roof there? A. Yes.
409. Q. Now it would require great force to blow that down? A. It is all depends how tight it was put in.
410. Q. Is not the whole work of putting a block in to put it up tight? A. You do not want to push it up quite tight.
411. Q. Are they not put in to support the roof? A. Yes, to take the weight off the roof.
412. Q. What are they? A. I cannot tell you the size.
413. Q. Would it take great force to blow them down? A. It all depends how they were put in.
414. Q. Would it take great force in any case? A. Oh yes, a practical way never puts in timber roofing too tight. If you put them in too tight, then with the least weight they creep off.
415. Q. Would it require great force to blow them down, the ordinary way they are put in? A. It would require a fair amount of force—not great force, I should say.
416. Q. When do you think that force came from that blow that blew down? A. I think it would come down No. 3 Right.
417. Q. Were not all the collections of force on No. 3 Right, in the main road, going into No. 4 Right? A. It was a go at a fair distance and then the force would break out again.
418. Q. Tell me how it would go by No. 1 Right? A. I should say about 160 yards.
419. Q. Was the force going into No. 3 Left, nearly opposite No. 3 Right? A. No, I think that would go out.
420. Q. I am speaking of between No. 4 Right and the point where No. 1 Right meets. Was this force going up? A. Not all the way.
421. Q. Between No. 4 Right and where No. 1 joins No. 4 Left you saw timber blown out? A. Yes.
422. Q. What kind of timber? A. Cherry, shingles or something of that kind.
423. Q. Were there any props and there? A. In some places.
424. Q. Were they weak there? A. I cannot say.
425. Q. Why do you say then, were blown out? A. Because of the way they were lying.
426. Q. Was one end toward the tunnel and one end toward the face? A. Yes.
427. Q. Can you say that props were used to support the roof there? A. Yes—I would not be positive, but I did see one or two.
428. Q. Were not two here blown across between No. 4 Right and No. 4 Left? A. I noticed two here blown in right enough. There were some of them very much in doubt.
429. Q. Were any of these here bent? A. Yes.
430. Q. Were they bent upwards? A. One was bent upwards.
431. Q. How far was that from No. 4 Left? A. I do not know the distance between the places. I would make it to be 50 yards, anyhow. Probably more than that.
432. Q. You say that you saw some falls between the 3th Right and the 4th Left—two falls, I think? A. That was in Aden's place.
433. Q. Between the 11th Right and the 11th Left? A. It was about No. 5 Right.
434. Q. On the inside side? A. Yes, I think the horse and the ship were with them.
435. Q. Was not that at the foot of the incline? A. Nearly down the *gg*.
436. Q. At the foot? A. Not at the foot.
437. Q. If not they are the road itself? A. Oh yes.
438. Q. There is a dead horse, and 2 parts further off there was a lark across the road. Is that correct? A. I think so.
439. Q. Is this correct—the coal was thrown upwards? A. No.

- 416 Q Were a single tree and chain lying on the table? A I did not notice them. I got past them very quick, I could not get past quick enough.
- 417 Q Now, you spoke of people being seized, and of signs of force? A We did see a number of them chained—I mean the spectators.
- 418 Q How far did that extend? A Out at two paces appeared to be burned.
- 419 Q Where were they? A Near the landing, on the steps of Adkin's place.
- 420 Q How many people did you see in No. 1 were not seen—did you see any at all? A No.
- 421 Q In the travelling road No. 1 was heading? A No.
- 422 Q In Morris' place? A No, I saw the dust on the side had apparently been seized.
- 423 Q For over how large an area? A Very large.
- 424 Q Would the space be covered by your dust? A Just a few particles here and there.
- 425 Q Were there any further indications? A There were indications, but they were over a fair-sized area.
- 426 Q It was not continuous? A It was continuous, but not too much in one place.

Continued by Mr Bruce Smith:—

- 444 Q Were you not in the same train—were immediately after the accident and once nine days afterwards? A I was in three times.
- 445 Q You went to immediately after the accident? A Yes.
- 446 Q And some days afterwards? A Yes.
- 447 Q Where did you go again? A I was in three times on the occasion of the accident.
- 448 Q On those occasions did you make any observations at all? A I simply went in to see the life as quickly as possible.
- 449 Q I saw it that your observations as to the cause and as to locality were limited to the first nine days after the accident? A That is correct.
- 450 Q How long were you in, roughly speaking? A Four hours.
- 451 Q You went in with a party of spectators? A Yes.
- 452 Q That was your purpose? A Yes. That was my purpose.
- 453 Q Your sole purpose? A Yes.
- 454 Q In order that you might not dare to form an opinion upon as to the extent, locality, and where the explosion originated? A Yes.
- 455 Q How many of you were in? A About nine.
- 456 Q Ten of them in for that purpose? A Yes.
- 457 Q Did you take a single note on paper of what you saw? A No.
- 458 Q You have created history in your recollection now as rehearsing the direction of force? A That is correct.
- 459 Q You would not have remembered some things unless Mr. Lyssaght had suggested them? A I would remember them.
- 460 Q Would you recollect all, or only something about them? A I think I would have remembered them.
- 461 Q You took the suggestion? A A suggestion is very handy some times.
- 462 Q It was of use to you? A Yes.
- 463 Q How you formed an opinion as to which you think worth repeating as to the direction in which the force, or these forces, appeared? A I have given you my opinion.
- 464 Q Do you think much of it yourself? A I think it is fairly good.
- 465 Q In what direction did you say it was? You see the map with the north and south indications at the bottom of it. No. 1 Right line as simple as possible north, in what direction, north, south, or west, did the force pass between? A More towards the north.
- 466 Q You found indications going east? A Yes.
- 467 Q You found them going west? A Yes.
- 468 Q You found them going south? A Yes.
- 469 Q Do think they really went in every direction of the compass? A The forces seemed to have spread.
- 470 Q Did you not find some indications going west, and again some going east? A What do you mean?
- 471 Q You found signs of force going west, westerly of some going east? A I do not understand you.
- 472 Q One you put your hands on the spot and say that they all went from one centre? A No.
- 473 Q You found some in a westerly direction? A Yes.
- 474 Q And some in an easterly direction? A Yes.
- 475 Q And some west of those going west? A Yes, it appeared as if some of the forces went and returned again.
- 476 Q Did you find any indications of force going north? A Yes.
- 477 Q And you found indications of force going south? A Yes.
- 478 Q And did you to the south of that find indications of force going north again? A Yes.
- 479 Q And of the force coming north again? A Yes.
- 480 Q Did you not find indications of several centres of force? A Yes.
- 481 Q Does not that suggest to you a series of explosions? A Yes, at least two.
- 482 Q And of explosions having taken place one after the other? A Yes.
- 483 Q If there had only been one explosion you would have found everything spread in one direction? A Yes.
- 484 Q You have no doubt from what you say that there were indications of more explosion than one? A I take it there were at least two.
- 485 Q Will you not undertake to say there were more than two? A I would not; but I am strongly of opinion that there were two.
- 486 Q Two at least? A Two at least.
- 487 Q Did you not think it worth your while to take any note of those things? A No, I trust to my memory pretty well always.
- 488 Q You have told the Commission that you would advocate having out-throgs made more frequently? A Yes.

489 Q. You know that in some cases now they are 150 yards apart? A. I do not know the distance, I think they are.
490 Q. You advocate having them every 30 yards? A. Yes.
491 Q. You have told the Commissioners that it is objectionable to have less? A. I did not say so.
492 Q. Do not doors cause leaks? A. Single doors do.
493 Q. It is not clear things have to be stopped sometimes? A. Yes.
494 Q. If you have more and through you would have more leakage of air? A. Not a great amount.
495 Q. Every cut through would be a leakage, would it not? A. Improved workmanship would lower that leakage.

496 Q. You trust to masonry? A. I trust to practical experience.
497 Q. What amount of dust do you think would be dangerous in a mine per foot of the roadway? Would it require a hundred weight or a pound? A. I should say about 75 pounds.
498 Q. How do you get that? Do you not know that it is maintained by alkali? A. I do not know.
499 Q. You heard Mr. Atkinson's evidence? A. No.
500 Q. Do you tell the Commissioners that you made a guess at 7 ounces? A. Yes, I guessed pretty well it is.

501 Q. Have you ever taken the trouble to consider what all these alterations you discuss will involve in regard to the cost of getting coal? A. Very little, I think.

502 Q. You have considered it? A. Yes.
503 Q. You thought it worth re-considering? A. Yes.
504 Q. Have you made a calculation as to what it would cost per ton to get coal of all your suggestions were carried out? A. I could go pretty close to the mark.
505 Q. What are the reasons you make? A. I have not suggested any expensive reforms, they are more making.
506 Q. I want you to remember? A. I have not suggested the cost, and that it would be a mere nothing? A. I say that some of these reforms may be expensive at all.
507 Q. Do you tell the Commissioners that you have considered the cost, and that it would be a mere nothing? A. I say that some of these reforms may be expensive at all.

508 Q. Taking the whole of them altogether, you have gone into that aspect of the case, and you say it would not add appreciable to the cost of getting the coal? A. No not to a great extent.

509 Q. Now, referring to the practice of opening safety-lamps, do you know of any cases which have occurred? A. Not of many.

510 Q. Can you give me anyone's name? A. I will furnish you with a name.

511 - Mr. Layton, I will produce it to be narrow mine.

512 - Mr. Bruce Smith. Q. Now, with regard to the question of discharging men for reporting gas and other things, can you tell me of any other cases that you know of? A. No, only my own, and I have read of the Bailey case.

520 Mr. Wade. The Bailey case was the opposite.

Re-examined by Mr. Loughton.

514 Q. In evidence to what you have heard of the Bailey case, have you heard anything from the man?

515 - Mr. Wade. I object to that question. [The previous was disallowed.]

Re Cross-examined by Mr. Wade.

516 Q. You say that you had several ounces of smoke, not you mark on the place where you found them? A. No. Your Right is one. And I think there is no other Allen's place. I saw that the man I put on the map earlier in my evidence was two feet south.

517 - Mr. Bruce Smith. Q. Which was the next centre? (No answer.)

518 - Mr. Wade. Q. Can you tell me of any more? A. There are the only two I know of.

Re Cross-examined by Mr. Bruce Smith.

519 Q. On this 7 ounces of coal dust can you tell me whether it is required for every hundred feet or for every square foot? A. I take it for every square foot.

Re-examined by Mr. Robertson.

520 Q. Is it not a fact that Managers and Inspectors are required to pass examinations? Yes, since 1902.

521 Q. Can you tell me how deposits or shut-downs are appointed? A. As far as my own particular colliery is concerned, they have to be pretty well qualified. At other collieries they appoint anyone.

522 Q. Would not the Manager for the area previously appoint the most competent man? A. Not in every case.

523 Q. Would the Manager appoint incompetent men? A. They have done so, in my opinion.

524 Q. Are there any such men in the district? A. There are men whom, if I were Manager, I would not appoint, but I know their qualifications to be better than the Manager does.

525 Q. Do you not think that a Manager having a knowledge of a man's work would be more competent to appoint a deputy or to give a certificate as to his competency than an Examination Board, who may not perfectly know the man's personal qualities? A. I take it that even if a man did pass a good examination it would not with the Manager to appoint him.

526 Q. Yes, a great many people get certificates who are not competent? A. No doubt about that.

527 Q. Would not the Manager be better qualified to speak as to a man's efficiency than an Examination Board, because it is not only efficiency to live a short, because efficiency may depend more on judgment than on veritable knowledge? A. I do not think it should.

528 Q. Do you prefer a man with veritable knowledge to a practical one? A. I should prefer a man who had both.

529 Q. We do not always get them mixed up together? A. I think it is possible to do so.

530 Q. You spoke in your evidence about an Inspector making safety-lamps put in a mine; and you said that he came in conflict with the Manager? A. I said the Inspector came put in.

531 Q. I think you said that the Inspector came in conflict with the Manager? A. I do not think I said "conflict".

532 - Mr. Bruce Smith. I will read our note on the matter. The witness said, "I have known instances where Inspectors have suggested lamps, and they have come into conflict with the Manager or the matter."

533 - Mr. Robertson. Q. Here they not also come in conflict with the mine? A. Yes.

508. Q. Here not the miners objected as well? A. Yes, I have heard of instances where the Manager and the miners objected. Of course, managers do not care for safety-lamps at any time.
509. Q. I think you know the idea of making all waste workings? A. That is, where they could not be properly ventilated. If they could be properly ventilated I would leave them open.
510. Q. Is it not better to leave them open than to build up dangerous gas? A. I think it would be better to leave the waste open if the air comes into the waste.
511. Q. You say that you want pillars through not more than 30 yards apart. Do you know that it is absolutely necessary that the pillars should be sufficient to support the roof? A. It is necessary.
512. Q. Would not the effect of 50 yard pillars be to bring on a crush? A. I do not think so. You would have to make the pillars larger.
513. Q. You talk of making 50 yard cut-throughs, and that would mean 30-yard pillars? A. I do not see that a narrow cut through would weaken it. If you have 100 yards of coal, and drive three cut-throughs through it, it will not take 9 yards left. Instead of 100 yards you have 106 yards.
514. Q. If whenever ventilation is secured by a heading shaft, or by a cut-through, is not that all you want? A. No, I do not think so.
515. Q. As the depth of the shaft or the evenness, you must have larger pillars? A. I do not know. I do not think you want larger pillars. I do not think a cut-through will make the difference which you mention it will.
516. Q. What object have you in view in connection with the watering of the roads? A. To keep down the dust.
517. Q. What is the immediate object? Is it comfort or safety? A. Both.
518. Q. There are other places than the roads and the heading ways in which dust accumulates? A. In the waste workings, I suppose, you mean?
519. Q. And an explosion might occur there just as well? A. I suppose so.
520. Q. Would it not be necessary to water all places in a mine? A. It would not be possible, I think, but where water can be used it should be used. If you thoroughly water the heading roads and the travelling roads you lessen the danger of explosion.
521. Q. But you observe No. 1 Right? A. Yes.
522. Q. Is it not dangerous? A. Yes.
523. Q. And not the explosion travelled over wet places? Yes, certainly it did.
524. Q. Would not that tell us that unless the winning is thorough and extensive it may as well not be done? A. I take it that wet places would avoid an explosion; you need only water the dusty places of the mine.
525. Q. As to the instruction of the men by the Deputy as to the exits from the mine, in whose time would it be done? A. In the men's time, going in or out of the mine.
526. Q. In the men's time? A. Yes.
527. Q. And as a very common man, where there are scores of miles of roadway, and every exit, and the men are changing districts every quarter, would that be of much service? A. I think so.
528. Q. Where there are six or seven exits, and, perhaps, three or four intakes? A. Yes, I think it would be a great advantage.
529. Q. It would take a lot of time? A. I do not think so.
530. Q. Are you not thinking of mines where there are only one or two exits—where there is only one travelling way in or out? A. No. I would take Mount Kemble, for instance, where there are more ways out than one.
531. Q. I do not think that you recognize that there are extensive mines where the men are shifted every quarter, and if it were possible that they could be outwaged as to the whole through their own districts, they would probably forget all the other places. If there were shown them once a week, I do not think they would forget it. I think it is a necessary thing.
532. Q. With regard to the method of putting on men, taking them for horses, do you know of any colliery where, under the present rule, there is not a sufficient supply even for the horses, according to your own statement? A. Not lately. I have not heard of any.
533. Q. Then there is adequate ventilation provided? A. As far as I know.
534. Q. In a mine with 50 horses and 500 cubic feet of air per minute for each, that would mean 25,000 cubic feet of air, and that would be a case from the addition to the ventilation? A. It would be a large mine which would employ 50 horses.
535. Q. Some of them do? A. Yes, some of them, but not many on this coast.
536. Q. As to still closing doors, do you think that the best position? A. Yes.
537. Q. Do you not think a man had better close the door himself? A. It would not prevent a man closing the door, he would close it when he was careless.
538. Q. There are a good many careless men about? A. Perhaps, at Helyburgh.
539. Q. You know that doors in a mine are not like doors in this room, they are sometimes in flintstone, but sometimes they are twisted out of place? A. Sometimes.
540. Q. If it was the business of a man to close the door would he not take care to move any obstacle out of the way? A. It would be the same with a self-closing door.
541. Q. If you found that no people had been prepared in a mine with very complicated ventilation, and a lot of gas going off, would not that satisfy you that self-closing doors were not necessary? A. It would satisfy me that a very good side of things existed at that colliery.
542. Q. In the mine you mentioned at Buth there was only one door? A. Yes.
543. Q. If there had been two doors so as to have a main road? A. No.
544. Q. What sort of instrument do you have kept, a thermobarometer or a barometer? A. I think both.
545. Q. And you watch them, where? A. At the bottom of the shaft.
546. Q. What would be the worst to check by having them at the bottom of the shaft? A. I think it would be advisable to have the person in charge.
547. Q. What sort of information would it give to the person in charge? A. He would have a knowledge of the pressure and of the weather conditions.
548. Q. Do you not think the ventilation of a mine ought to be independent of weather conditions? A. Yes.
549. Q. In most collieries are not several travelling ways provided for the men? A. I think in most collieries there are.

189 Q. Is nearly all? A. I would not like to say that.

190 Q. Mr. Morgan said something about the Mining Laws in America with reference to "black-baiting." Do you know whether they have an Arbitration Act there? A. They do most of their business

191 A. I do not know.

192 Q. Do you think it necessary to have provisions in a Mining Act which are dealt with in the Arbitration Act? A. I think it ought to be in the Mining Act.

193 Q. Why have duplicate legislation? A. We are quite satisfied to have it in our Act.

194 Q. You have arbitration now? A. No doubt.

195 Q. You object to the mode of working at Mount Kembla? A. I do not approve of it. I do not object to it altogether. In some cases I consider an ideal system.

196 Q. You would run to the back end of the property, and they fetch the pillars back? A. Yes.

197 Q. Do you know how many some thousands of acres is engaged? A. It might be.

198 Q. It might take thirty years to get to the back end? A. Yes.

199 Q. Or, say, twenty years? A. Yes.

200 Q. And in the meantime all the other places would be left in the shape of old workings for the gas to accumulate in? A. Yes, I suppose so.

201 Q. Is it not better to take the roof out and allow the roof to come in? A. I would rather work a mine out as you do now.

202 Q. Would you rather have a gasometer? A. That is a gasometer, there is no doubt of space of that kind here & above the pit.

203 Q. If the roof is supported in, where is there any place for gas? A. There would be any amount of space in various parts of it.

Examined by Mr. Ritchie—

204 Q. With regard to the watering question. You want the bearings made and the travelling made watered? A. Yes.

205 Q. Would that make the conditions safer? A. It would.

206 Q. Although there may be dust in other parts of the mine, is it possible to minimize it? A. Yes.

207 Q. You would bring it down as low as possible?

208 Q. You believe it would be possible to have these pits watered? A. Yes.

209 Q. You do not put it forward as making the conditions absolutely safe from dust but to minimize the danger? A. Yes.

210 Q. With regard to putting out through not more than 30 yards apart, would you put a cut through and leave it open at each end? A. It would be sealed off.

211 Q. Would it be possible to seal off each stopping not necessary for air, so as to make it air-proof? A. I do not know that it could be made absolutely air-proof, but very near it.

212 Q. Is that the practice adopted in wet countries? A. Yes.

213 Q. All cut through not required would be sealed off? A. Sealed off at each end.

214 Q. Do I understand that the way you always cut through at regular distances is for additional security in the way of safety? A. Yes.

215 Q. Do you think there is considerable danger of the current being put out of order and also the air current put out of order? A. Yes, there is considerable danger.

216 Q. You advocate this in order to minimize the danger of mines being consumed by fire gas? A. Yes.

217 Q. Do I understand that your general opinion is, that safety ought to be the first consideration, apart from the question of expense? A. Yes.

218 Q. That no matter of expense should stand in the way of making a mine absolutely safe as far as work is concerned? A. Yes.

219 Q. You believe that the whole of these suggestions are quite practicable? A. Yes, and at small expense.

220 Q. You criticized the action of a deputy's work quite well? A. Yes.

221 Q. The emergency deposits are relied upon to see that the mine is safe? A. Yes, that is their main business.

222 Q. Your proposal is that these persons should obtain a certificate? A. Yes—a man's life depends on the skill and ability of the deputy.

223 Q. As far as the examination is concerned it would be one limited to a knowledge of gas, and the best means of detecting them? A. Yes.

224 Q. Do you know any persons who have been appointed to responsible positions where you believe have no knowledge of gas? A. Yes, I have known such persons to be appointed.

225 Q. Is the reason that you advance for Managers being certified in the same way because of the mere defect? A. Yes, that is correct. A Manager should go through a proper examination. He may be a very practical man and well up in theory, but we do not know that would a disaster occur, and then you find out that the Manager you thought all right is altogether wrong.

226 Q. He also made you find out that the person you had been depending on, for keeping the mine safe, has no knowledge as to whether it is safe or not? A. Yes.

227 Q. And you think he should be qualified by examination? A. Yes.

228 Q. Do you know any Managers who would not know gas by sight? A. I could not go that far. I can hardly say that.

229 Q. Would you regard a Manager who said that he did not know anything about gas to be qualified? A. I should think him very much unqualified.

230 Q. Would you think a man qualified if he did not know the constituents of gas? A. No, I do not think a company would employ a man of that kind if they considered the safety of their employees.

231 Q. Do you think a Manager should be more completely taken ground? A. Yes.

232 Q. You think that he should bring his personal knowledge to bear on matters before the ground? A. Yes.

233 Q. That is his work—and I think he should attend to it.

234 Q. Do the Government Inspectors attend very often? A. I cannot say very often.

235 Q. Do you think they ought to attend more regularly? A. I think so.

236 Q. Do you know anything about the extent of their examination when they do appear? A. Well, sometimes I think it is more of a visit than anything else. I do not think you could get it as a surprise.

Witness—E. E. Rogers, 6 January, 1905.

- 621 Q. How often have you seen an Inspector at your mine? A. Once in about every six weeks, but he may have come often and I not have seen him.
 622 Mr. Lyngstøl. Can I ask a question arising out of Mr. Robertson's examination?
 623 Mr. Moore. It is rather irregular.
 624 Mr. Lyngstøl. I was going to ask him with regard to the Mining Laws at Colorado.
 625 Mr. Moore ruled that it would be better to lay before the Commission any books or documents containing such laws.
 626 Mr. Moore, in answer to Mr. Bruce Smith, said that he intended the Commission should meet on Tuesday, Wednesday and Thursday next week, and that all such witnesses should be taken at Wallingbury, and that afterwards a visit should be paid to Newcastle, or other places if necessary, and that witnesses from Newcastle should be examined in Sydney if thought desirable.
 627 (At 5.15 p.m. the Commission adjourned until the following day.)

WEDNESDAY, 7 JANUARY, 1905, 10 a.m.

(The Commission met at the Court-house, Wallingbury.)

PRESENT—

C. E. R. MURRAY, Esq., D.C.J. (PRESIDENT)

D. A. W. ROBERTSON, Esq., COMMISSIONER

D. RITCHIE, Esq., COMMISSIONER.

Mr Bruce Smith, Barrister-at-Law, instructed by Mr. Wood, Crown Solicitor-General, appeared on behalf of the Crown.

Mr A. A. Addison, Chief Inspector of Coal mines, assisted Mr Bruce Smith.

Mr A. A. Lyngstøl, Solicitor, appeared on behalf of—

- (a) the representatives of deceased miners, whether do. (victims of the explosion);
- (b) the employees of the Mount Kembla Colliery (miners, whether do.); and
- (c) the Hawarna Colliery Employees' Association (the Southern Mines' Union).

Mr C. G. Wale, Barrister-at-Law, instructed by Mr. F. Curzon, appeared on behalf of the Mount Kembla Coal and Oil Company (Incorporation of Mount Kembla Mines).

(Mr J. Garlick, Secretary to the Commission, was present to take shorthand notes of the evidence and proceedings.)

628 Mr. Moore. It is understood yesterday that the evidence taken before the Queen's Court was being used by this Court as evidence in the case of this inquiry, but it was not actually formally made part of the evidence in this case by its being put in. The Court now considers that, perhaps, it is best to say that it is considered as evidence in the case, and that the various documents which were put in as evidence to that evidence are also to be taken as put in with that evidence on this hearing. Some of those documents, Mr. Wale, are in the possession of the Company actually now.

629 Mr. Wale. Those would be the report books?

630 Mr. Moore. Yes. You might get those books produced.

631 Mr. Wale. If Mr. Garlick will give me a list, I will get them. I am under the impression that the colliery plan was put in as evidence. It would be a great convenience if that were taken away from the colliery for any length of time, and we have copies left.

632 Mr. Moore. Were not those copies photographed from that plan?

633 Mr. Wale. Yes.

634 Mr. Bruce Smith. Will your Honor understand that each witness marked a separate lithograph which was marked with his name?

635 Mr. Moore. Yes, we have those here. It is not necessary, Mr. Wale, that that particular plan should remain out of the possession of the Company because it happened to be put in. The Company may have them.

636 Mr. Wale. Before the evidence began this morning, I wish to refer to No. 15 of the suggestions made by Mr. Lyngstøl on the last day of this morning. It simply says, "Classification of Circumstances of William Rogers, Manager." I think I might briefly say, at this stage that Mr. Lyngstøl should state the grounds on which he asks for the examination of Mr. Rogers' certificate.

637 Mr. Moore. As that is a suggestion directly affecting the Company in relation to one of its officers, I think the suggestion made by Mr. Wale is a fair one.

638 Mr. Lyngstøl. I have no objection. The recommendation is made, in a general manner, on account of the evidence given by Mr. Rogers at the inquest, when, amongst other things, he stated that: "I took the report of the witness as sufficient for me with my own examination. I never personally took the amount of ventilation passing in the mine at any time. I have seen some kind of trap. I saw some there a week ago last Thursday, but before the disaster I never looked at the trap at the Kembla. That was four or five months before the disaster. I did not report the discovery of that black damp at any time, and I did discover black-damp before that, and I did not report it. I never remember Rogers reporting gas to me. I will not vouch he did not report it to me. I knew that gas was found in the mine years ago. In my opinion, if the witness thought the black damp which he discovered was dangerous, he should have notified it and not otherwise. I never heard of the Royal Commission of 1903. I never knew that my own Manager attended and gave evidence. I do not know that I have ever read the report of the Bell Disaster Royal Commission. I do not know whether we are working the Bell mine."

639 Mr. Wale. You have given me the very words which under the whole of the dilemma, "I have been told that it is." I asked for a specific charge or charges. It does not care how many there are if Mr. Lyngstøl will under the charge. My friend is now merely reading out the allegations in the evidence of Mr. Rogers.

160 *Mr. Hawes* [Mr. Lynam is now giving his reasons for making the suggestion, the general reason being that certain things appear in the evidence given by Mr. Rogers; but that is hardly a compliance with what Mr. Wade asked for. Mr. Wade's request is that some specific charges be made against Mr. Rogers, instead of merely a request that Mr. Rogers' certificate be cancelled. The certificate could not be cancelled in any proceeding except upon some specific grounds. Mr. Wade has asked what those specific grounds are, and what the foundation of the grounds is.

161 *Mr. Lynam* [Perhaps I can clearly state—the incompetency of the Manager as shown by his absence on all the reports.

162 *Mr. Wade* [That is equally vague. I am no further ahead at all. Surely my friend can put it in some more definite form?

163 *Mr. Lynam* [I say it is general incompetency, as evidenced by his evidence at the inquest.

164 *Mr. Hawes* [As Mr. Lynam has put it in that way, I do not think we can go any further in the matter in anything but to analyze the incompetency.

165 *Mr. Wade* [No, Your Honor, but surely he could give the specific instances which indicate the incompetency.

166 *Mr. Hawes* [Then Mr. Lynam says [I call attention to the evidence which Mr. Rogers himself gave, and I say that that evidence is the base of it, the nature of the incompetency which I charge.

167 *Mr. Lynam* [Yes, Your Honor.

168 *Mr. Wade* [In that case I would ask him to read anything else he relies upon.

169 *Mr. Lynam* [That is what I was about to do when I was stopped. I do not know that I do know anything at all about Mr. Green's statement that this was the case in Kentucky when he was Manager. I do not know anything about the composition of the Rock union in far as its general nature is concerned. I have never made any study of the general properties of that coal. I am not prepared to dispute the statement of Mr. Hawes that 3,800 cubic feet of ignominious gas accumulated in the same shaft that we are working in eight hours under certain conditions in a mine (not Mount Kemble) in this district.

170 *Mr. Hawes* [Does it not appear to Your Honor that this is evidence in support of one of the propositions?

171 *Mr. Hawes* [I think it would be quite enough for Mr. Lynam, to say now—and I have allowed him to say that—and I ask the Court to gather from that evidence given on cross-examination by Mr. Rogers, that he is not competent for the work as a Manager which he has undertaken? I think that is quite enough now. It is only to see the kind of argument that Mr. Lynam will forest upon that, whether it is good or bad.

172 *Mr. Lynam* [Might I add also to that that I may be able to call evidence that since the disaster he has permitted practices which are dangerous?

173 *Mr. Hawes* [At this stage the map used during the evidence of Mr. Thomas Richard Rogers, and marked by him, was put in, and marked "Exhibit No. 1."

174 *Mr. Lynam* [I have prepared for Your Honor this morning this digest of the recommendations. They number now twenty. I do not know whether Your Honor desires any further amendment of them.

175 *Mr. Lynam* [Then incident in the list of recommendations, which is copied hereunder.

Recommendations made by Mr. Lynam.

1. Managers, under-managers, deputies, and shot-fires, to hold Certificates of Competency by examination, and to have had five years practical mining experience, before being eligible for respective positions.
2. Inspectors to be vested with absolute powers in order use of safety lamps.
3. Ventilation by furnace prohibited, and fans substituted.
4. Waste workings to be absolutely sealed off, and surrounded by return airways (the fans of returning), such return airways not to come in contact with intake.
5. All places, except prospecting drives, to have cut-tings not more than 20 yards apart.
6. Inspection with sealed safety lamp as of all cases.
7. Monthly examination and report by Inspector and District Inspector with independent firms.
8. Minimum of 100 cubic feet of air per minute to be provided for every horse, instead of 100 as at present.
9. All doors erected as in to close and remain closed at once motion.
10. Double doors on down between main intakes and returns, and main headings.
11. Weekly measurement of air in each section, and report thereof sent to Inspector.
12. Return supply of safety lamps and their requisites, equal to one-third of number of persons employed below ground, to be kept constantly in good order and ready for use.
13. Travelling and hauling roads, and other places necessary, to be properly widened.
14. Managers compelled to give more personal time and attention to management of railway.
15. Instruments to be placed at bottom of shaft to obstruct transverse of haul and air-passages.
16. Size of main holes enlarged.
17. Cancellation of certificates of Wm. Rogers, Manager.
18. Incompetence to employees regularly on notice of warning.
19. Coal mines Act to furnish a black list of employees being kept, and providing express provision of discharged persons obtaining employment.
20. Safety-lamps not to be subjected for shot firing.

176 (The order for the exclusion of witnesses was repeated by His Honor).

Mr. EDWIN HIGGINS was sworn, and examined, as under—

Examination in chief by Mr. Lynam—

177 Q. What is your name? A. Edwin Rogers.

178 Q. What are you? A. A miner.

179 Q. Where do you work? A. Mount Kemble.

Witness—E. Rogers: 1 January, 1905.

660 Q How long have you been working as a miner there? A I should say about nine years as a miner—
as near as possible nine years.

661 Q Were you working in the Kumbula Colliery last Wednesday? A Yes, sir.

662 Q Who was the first fire for your district? A Mr. Forsythe.

663 Q Was any shot fired by him in your working place last Wednesday? A Yes. There was a shot
fired there just Wednesday.

664 Q At the time, or shortly before firing the shot, had any part of your working place or the vicinity of
it been watered? A I could not say that. I did not take any notice.

665 Q Did you see any part of it watered? A It might have been watered, but I did not see it. I could
not say. I did not see it.

666 Q Can you give the number, or can you show on a plan the place, where you were working? A Well,
I have not been working in that district, I suppose, for a couple of years. I could not guarantee to give
exactly a plan of the place.

667 Q Can you state where it is? A It seems to be to the right of No. 3. I believe I am in the main
heading. I have only been there a short time.

668 Mr. Rogers: Is it now a plan of the mine, do you think you could pick it out? [Witness did not
answer.]

669 Mr. Eynight: Q How was the fire to fire that shot ignited? —

670 Mr. Wade objected to Mr. Eynight's line of examination. He objected to Mr. Eynight's examining
the witness with regard to any alleged breaches of the Regulations since the date of the disaster.

671 Mr. Bruce Smith stated that he took the same view as Mr. Wade.

672 Mr. Eynight and that he tendered this evidence in support of recommendations. No. 16, which was
that safety lamps should be withdrawn for short firing, and also in support of the proposition that Mr.
Rogers is not a competent Manager, and that his sentence should be annulled.

673 Mr. Rogers consulted his colleagues.

674 Mr. Rogers: We are all of opinion that this matter ought to be brought up to the time of the accident,
and not now. Whatever Mr. Rogers may have done, or may have failed to do, some time before the
accident, he can be called upon under section 12 of the Coal-mines Regulation Act in relation to that of it
is thought proper to do so. But it is not a question for us of what he has done since or what he has failed
to do since, and I do not think we ought to go into that as a test of evidence to show what he might have
done before the accident. Up to that time, we are to say to what happened, and from all that
evidence to see what happened up to that date we can come to a conclusion, as we are asked, as to the cause
of the accident, and can make upon all the evidence that we have any recommendation that we think fit
for the future; but as to the conduct of officials since that date I think we have absolutely no jurisdiction,
and I think also, if we attempted to go into that question we should land the Commission in a most
unfortunate inquiry. Therefore, we uphold the appointment by Mr. Wade, and we decline to hear evidence
of those facts which have occurred since the accident, apparently directed towards, principally, the question
of whether or not some official has acted negligently, or whether or not some improper course of conduct has
been pursued in the mine in relation to blasting of shot.

675 Mr. Eynight: I take it that just Mr. Rogers' ruling would exclude me from giving evidence of a
dangerous practice for which we ask for a recommendation to be made.

676 Mr. Rogers: A dangerous practice upon which a recommendation should be made is a generally
existing dangerous practice, or what might be a dangerous practice if it were adopted. It is quite
unintended whether, as a matter of fact, it is or is not adopted now. It is quite easy to show by general
evidence that it is a dangerous practice. But, if an accident had happened—if it were a question whether
a practice was or was not dangerous, and if, for the purpose of proving that it is dangerous, it could be
proved that some accident happened in consequence of its being adopted then, though that accident
happened under the conditions, such evidence might be given. But to show that there is a taking advantage
of a loophole which is already contained in the law to give notice and immaterial as far as I can see. I
cannot do so; that it ought to be given, and my colleagues agree with me in that.

677 Mr. Eynight: Then I have no further questions to ask the witness, Rogers.

Cross-examination by Mr. Wade —

678 Q Were you with the party with which were Mr. Ritchie, Mr. May, Mr. Magnus, and Mr. Magnus?
A No, sir, I was not.

679 Q Was that your brother? A A brother of mine.

[Witness retired.]

Mr. JAMES MAGUIRE was sworn, and examined as under —

Examination-in-chief by Mr. Eynight:—

680 Q What is your name? A James Maguire.

681 Q Where do you work? A South Cliffe.

682 Q What are you? A A miner.

683 Q You are the President of the Kumbula Colliery Employees' Association? A I am.

684 Q Did you visit the Mount Kumbula Mine at the time of the disaster? A Yes, I did.

685 Q What day were you there? A I was there upon the day of the explosion—on the day the
disaster occurred.

686 Q If I call you to the Commission what part of the mine you went into. A I went into a part of the
mine called the Shaft Station. I think that is the name. I went in there on that occasion for the purpose
of doing what I could towards rescue. I attended, I think it was, two men; they were alone at the time.
I forgot their names. I forgot in doing those two men up. I did not go any more on that occasion.

687 Q Were you on the No. 3 Right District at all on that occasion? A No.

688 Q Did it go on in the mine on a subsequent occasion? A Yes, I went in on an inspection.

689 Q On what date? A I could not give you the exact date. I think it would be — [Interposed.]

690 Q The 16th August with Mr. Morgan? A About two or three weeks after—something like that—I
could not give you the exact date.

691 Q With Mr. Morgan and Mr. Ritchie, and a party of six? A Yes, there was a party.

692.

977 Q Well now, I do not want to go right through all you observed—will you kindly tell us what you observed you arrived at, if any, from your inspection of that occasion? A After the explosion the only conclusion or theory that I could arrive at was that that an explosion of gas must have occurred, based on the fact that the old workings, and that it came out in the mixed light and smoke of the disaster. That is the only conclusion that I could come to.

978 Q Could you inform us on the plan what old workings you refer to? A Yes,—well, some portion of the 25 acres, I should imagine, would be where it would come from, and be based on to their working places (not along any mine).

979 A. H. Hume? Q Through what opening should you say that the fanning of the gas took place? A I think, at the time that it came out, at a place worked by a man named Ashen. I remember that some were particularly.

980 Mr. Wade? Q You thought what? A That the gas had come out into the place that was worked by the man Ashen.

981 (By direction of His Honor the Secretary pointed out on the plan to the witness the position of Ashen and son's working place.)

982 Witness? I think that was the name. It was a pillar, at all events.

983 Mr. Lyngby? Q Do you mean that the explosion originated in Ashen's place, or started from gas you think had accumulated in Ashen's place? A That is how near to it, from the evidence of how that went down, and the shared props. There was evidence of great force put at that place; ships driven into each other, and shared props, and shared roof.

984 Q You are by the plan that Ashen's place was some distance from that 25-acre coal. Was there more than one explosion? A Well, perhaps I may have mistaken that about the 25-acre coal, and I may have taken it as the coal near by. I am by the plan now that there is a small coal near Ashen's working place.

985 Q Do we understand now that it is the small coal you refer to near Ashen's place? A Yes; I suppose it was, now. I understood that that 25-acre coal was there, but I see by the plan that it was some distance away.

986 Q Do you mean that there was only one explosion, or a series of explosions? A I could not tell you an opinion on that as to whether there was or was not.

987 Q Do you think that coal dust played any part in the explosion, or in its spreading? A I have no doubt it would, once it started. I think there would be no question in my mind that it would.

988 Mr. Wade? Q Did you say "would" or "did"? A I have no doubt it would.

989 Mr. Lyngby? Q In your opinion did it, in this case? A Oh, I would think so. Yes, I think it would.

990 Q Beyond that can you give the Commission any information to lead to a conclusion as to the cause? A No, I do not think I can.

991 Q How long were you examining? A We were, I think, about five hours, roughly, something like that.

992 Q Did you observe any indications of burning or fanning or charring in any other place besides Ashen's? A No. I do not remember seeing anything suggesting that place. I remember that place more particularly. I do not think there was any other place. There may have been a place. I am not exactly sure, but I do not remember it.

993 Q You are aware of the first recommendation of the Union — "Managers, super-managers, deputies, and shift-bosses, to hold certificates of competency in examination, and to have had five years' practical mining experience before being eligible for the respective positions." What do you say in support of that recommendation? A Well, I think it is only right that men who are in responsible positions should have these qualifications. They are very responsible positions, and I think they should hold certificates.

994 Q Can you give me that more fully, particularly, as regards the deputies and shift-bosses? A I do not know that I can. I look at it this way, that these men practically have the whole of the people under their charge, and that they should have a qualification for that according to the position they hold.

995 Regarding Recommendation No. 3—"Inspectors to be vested with absolute power to order use of safety lamps."—do you think that would be a wise provision? A Yes, I think that would be a wise provision. I think they are the proper persons, or should be the proper persons, to know whether these lamps are required or not, and it is just as well to have the absolute power in their hands; and then we know who has the power.

996 Q What do you suggest support of No. 1—"Ventilation by furnace prohibited, and fans substituted." A Oh, I think fans are less liable to get out of order. The furnace seems out of date. The fan would be superior in my opinion.

997 Q And in what other way is the furnace a danger? Is it dangerous in case of a disaster? A It is more liable to go wrong, and in case of a disaster the fan would be superior, I think, of the two. It would be less liable to accident.

998 Q Is not there the danger that if the furnace — [Interposed.]

999 Mr. Wade objected to Mr. Lyngby's putting leading questions.

1000 Mr. Lyngby? Q Assuming that there was a disaster near the furnace, and anything happened to the furnace, would not that have the effect of shutting off the air from nearly every other part of the mine?

A Yes, of course it would.

1001 Regarding No. 4—"Make workings to be absolutely void if not reached by return airways (for face of workings)—such return airways not to come in contact with intake." I think you discuss in any connection on that recommendation, as President? A I would prefer myself to see them, if possible, watched. If it was practicable at all, I would prefer to see them watched rather than to shut them off, but if that could not be done, then I think that the next best thing would be to close them up.

1002 Q Looking at that plan there, that 75-acre coal, do you think it would be at all practicable to ventilate that—that big coal there? A I do not know whether it would or not.

1003 Q How far out would I have gone in being ventilated? A Well I cannot say I have.

1004 Q Now, No. 5—"All places where gas is liable to collect to have air through and more than 30 rods apart."—What do you say to that? A I think that is a matter that could be done. I do not see any difficulty in the way of doing that. It would be better than carrying the lantern up and depending on lanterns. I think 30 rods would be a reasonable distance.

729. Q. Do you think that the closing of these cut-throughs would have any effect upon the support of the wall? A. No, I do not think so. I cannot say that it would.
730. Q. What size would you propose to have the cut-throughs? A. Oh, about 2 yards.
731. Q. What? A. Yes.
732. Q. And in what way would the cut-throughs be an additional protection, an additional safeguard—the new cut-throughs? A. Well, the air would be brought up better, and we would not be relying upon the bottom to crush—the bottom gets sagged down, and the air gets lost. There would be protection in that way.
733. Q. After the plans had been drawn up to where there should be a second cut-through, would you have the last cut-through sealed off? A. Oh yes—when the first one was through, and they got the sand down, I would back the first one off.
734. Q. And regarding No. 6—"Inspection with locked safety lamp in all cases"—you consider it a wise provision to insist that action of the Act which allows an inspection—[interrupted]
735. Mr. Hansen: Do I understand, Mr. Wade, that you dispute the expediency of that amendment?
736. Mr. Wade: I cannot say I dispute it, but I cannot absolutely admit it. I admit, then, as a matter of fact, for the greater protection of the mines, I think nearly every colliery nowadays does use the safety lamp for the purpose of inspection.
737. Mr. Hansen: A locked safety lamp?
738. Mr. Wade: Yes.
739. Mr. Hansen: There seems to be no valid reason for the exception. It seems to be hardly worth arguing.
740. Mr. Bruce Smith: I understand it is not so in the West. The conditions are different there.
741. Mr. Wade: But I am speaking of the North Coast.
742. Mr. Bruce Smith: But these accommodations appear to apply to the whole State.
743. Mr. Wade: It did as we are concerned at Mount Mansfield. I cannot say more than that we have, in spite of the fact that the report looks shrewd for years and years ago, made the suggestion with a locked safety lamp.
744. Mr. Hansen: You went on the assumption that this is a particularly safe mine; and yet you have adopted that plan. That is very strong evidence to show that that provision is taken even in cases where it is least necessary.
745. Mr. Wade: I do not want to do anything that will land anybody else outside my own claims.
746. Mr. Bruce Smith: I do not want it to be supposed that the Department takes any exception to the proposal to make it universal. A lot of course can be to be taken, when witnesses go into the box who are familiar with the mines in only one part of the State, and they express adverse opinions, as to what should be done with respect to the condition elsewhere.
747. Mr. Hansen: I only made the suggestion.
748. Mr. Bruce Smith: I think I might adopt your Honor's suggestion.
749. Mr. Hansen: It is hardly worth while listening to the matter.
750. Mr. Wade: It would not be imposing any hardship upon them over in the West.
751. Mr. Bruce Smith: Our Inspector, who will give evidence before the Commission, has had a great deal of experience in the West, and we may all have some questions as to the practice.
752. Mr. Hansen: There was one gentleman who gave evidence before the Governor who certainly expressed the matter very simply, and in a very common-sense way. He said that if you were inspecting the gas with an open light, and if you found the gas, probably you would not be in a condition to report it.
753. Mr. Bruce Smith: Your Honor will remember that Harrison stated that he went to inspect with a naked lamp.
754. Mr. Wade: That was a very unfair question. It was put deliberately to make the man say "yes" or "no" in it, and now it is made out of.
755. Mr. Bruce Smith: Q. Now, No. 7—"Monthly examination and report by deputies and District Inspector with hydrogen flame." Do you think that is an essential provision to take in the mines? A. Yes, I think it would be a good thing, and would give additional security.
756. Q. For the reason that the safety lamp cannot detect below 2 per cent? A. Yes.
757. Q. Do you think that would cause any great inconvenience or any material expense? A. I do not see it. I do not see that it would be a great matter to do once a month.
758. Q. No. 8—"Maintenance of 100 cubic feet of air per minute to be provided for every horse, instead of 180 as at present," you might say how much more air in your opinion than a horse needs than a man in a mine? A. I could not say exactly, but I could only say that it takes more, that is all.
759. Q. In your opinion, an 180 cubic feet is a reasonable allowance for such horses? A. Well, it is only a matter of guess work with me as to how much a horse would require, but I think it might be here that is lost.
760. Q. The minimum of 100 is in your opinion totally insufficient? A. You are asking me about the amount for the horse?
761. Q. Yes. A. Yes, I think the 180 added to the other would be an improvement.
762. Q. In your opinion 180 cubic feet of air per minute is not sufficient for a horse? A. I do not think it is.
763. Q. No. 9—"All doors erected as to or close and remain closed at own motion." Do you think that is a necessary provision to take? A. Yes. If they closed at their own motion that would do away with any maintenance on the part of anyone not doing them. If it closed on the own motion there would be no necessity for a person to close it.
764. Q. Do you think it would add to the negligence of anyone who might come across one that was accidentally open? A. No; the rule would be there still that they would have to close them. If any accident happened or anything blocked it from closing they would still have to close it.
765. Q. And that would not entail any material expense on the Company? A. I do not see that it would entail any.
766. Q. And that is a reform that could be very easily and quickly fixed up? A. Yes, a very simple reform, that.

- 715 Q Now, "Double doors are driven between main entries and returns and main heading." No. 13
What do you say to that? A Oh, I think that is a reasonable thing to say for. One door is closed while
the other one is open, preventing escapes while ships are going through, and, as anything like that—one
door is closed and the other is open.
- 716 Q That is, one door should be closed and the other open? A Yes, should be.
- 717 Q As a matter of fact in some of the evidence do you know that they have double doors? A Oh,
yes, they have got double doors at some of them.
- 718 Q No. 11—"Weekly measurement of air in each section, and report thereof sent to Inspector." Any
know, the measurement is now once a month; do you think it would be an additional safety if it were
once a week? A Yes. It would mean increased safety. They would know where how things were
moving by doing it once a week.
- 719 Q Would that entail any extra expense on the proprietors? A I suppose it would—a certain
amount. There would be the cost of a man going round to do it—that would be all.
- 720 Q Where would you have the air measured? In what parts of the mine? In each district? A If it
is to be done, I should say so thoroughly.
- 721 Q What would you call "checking it thoroughly"? A Well, in the whole of the splits.
- 722 Q Is the measurement of the air at the main intake any evidence at all of the air circulating in every
part of the mine? A No, only evidence of what air is circulating in that particular place.
- 723 Q No. 12, "Kerosene supply of safety lamps and three requisites equal to one third of number of persons
employed below ground to be kept constantly in good order and ready for use." Do you think that is a
reasonable? A Yes. I think that is one of anything happening those lamps will be there, and they may
be the means of saving life.
- 724 Q What was your experience at Keweenaw regarding lamps at the time of the disaster? A There was
not a sufficient quantity, and they were very short—very few—I do not know how many, but they were
insufficient at all events.
- 725 Q What was the condition of the lamps? Were they out of order, too, in addition to the lamp
generally? A Yes. I say there was an insufficiency of lamps, and the lamps that were there were not
ready for use. They were not ready to go straight on. They had to be got ready.
- 726 Q In your opinion, if there had been an adequate supply of lamps in condition, could a number of
men have been saved? A I think it is very probable that there would have been.
- 727 Q No. 13, "Traveling and haulage roads and other places necessary to be properly watered." In
addition to the watering of the haulage road, do you think it absolutely necessary that the traveling road
should be watered? A Oh, yes.
- 728 Q Mr. Deane Smith? I do not know whether your Honor thinks it best, in getting expert evidence, for
the questions to put the evidence in his own way. It does not come with any weight at all.
- 729 Q Mr. Deane? The reporter here, who is a very careful and accurate reporter, is asking down questions
and answers, and when questions appear as the report of the evidence which should necessarily supply
a certain answer, and that answer follows, any person making that evidence will feel how very much the
weight of the evidence is taken off by the question. The inquiry is more to the consumer than to the other
side.
- 730 Q Mr. Deane Smith? A What do you say as to the necessity for the watering of the traveling road?
A What I think about watering is that, although it is a great inconvenience if there is watering all over
the mine, a certain amount of watering would be better—the air would be cooler passing over it, and
the dust would be held—not only on the haulage roads, but the traveling roads. It makes it easier, reduces
the dust, and keeps the dust low. That is all the object I see in watering—the laying of the dust.
- 731 Q No. 14—"Managers compelled to give more personal time and attention to management of
mining." A Yes.
- 732 Q I think he ought to give the fullest possible time that he can, work as much as he
possibly can, being the head of the work.
- 733 Q What has been your own experience as to Managers attending, watching, the work workings of
the pit? Your personal experience? A Well, I am the Manager occasionally. I should say two or three
times in a month, perhaps. That is about it roughly. Some months, perhaps, more, you know; and,
perhaps, others not quite so many but something like two or three times in a month.
- 734 Q No. 15—"Instruments to be placed at bottom of shaft, to determine conditions of heat and air
pressure." A Well, if the thermometer of a furnace was to be, you might put an instrument there; but, as
far as the speed shaft is concerned, I cannot see much use for it there.
- 735 Q That is, if the furnace are discontinued? A If the furnace are discontinued I do not see much
use for it.
- 736 Q And the use of the machines enlarged (No. 16)? A Yes, I think that would be a benefit. When
they are making them they may as well make them a little bigger and give the people a choice. There
may be two or three things to get into a machine at the one time, and it is rather small.
- 737 Q No. 17—"Cancellation of certificate of William Hagen." That is not a matter upon which you are
going evidence. No. 18, "Instruction of employees regularly on means of escape."
- 738 Q Mr. Deane? What is the number of the rule providing for instruction?
- 739 Q Mr. Deane? They are to be 3 feet wide, and 4 feet deep, and 6 feet high.
- 740 Q Mr. Deane? That is only in special cases—General Rule 14.
- 741 Q Mr. Deane? The General Instruction on means of escape? A I think that is a necessary thing. I
think that where there are ways out of the mine a man should be instructed in those ways, so that he can get
out as quickly as possible. It may be that he might lose his way, and lose his life through losing his way.
- 742 Q Would that interfere at all with the general way management of the colliery or could it be easily
effected? A Oh, I think that could be very easily done—no expense, no trouble, or anything—and very
necessary too, I think.
- 743 Q No. 19—"Classification Act to forbid a black list of employees being kept; and providing employer
prevention of discharged persons obtaining employment." What do you say to that matter generally?
A Well, generally, I think if anything like that was done it would give more security in cases. A man
might be both in one forward to open anything on his own evidence; and, if there was something like
that I might encourage him a little to open forward calls to report matters or to give evidence in cases.
It may be so. He would have that amount of security, of all events.

191. Q "Substances not to be unlocked for shooting?" (No. 35) What do you say in that? You know of that provision where the safety lamp can be unlocked if gas has not been discovered? A Yes, I think it would be better if it could be avoided and the shaft fired on other ways, either by electricity or by the wire. I think it would be better not to open the lamp, at all events.

192. Q Is there anything else you desire to say before the Commission? A No, I have nothing that I can think of.

Cross-examination by Mr. Wade:—

193. Q With regard to the question of safety lamps not being unlocked for shooting—supposing that a particular place has been examined in the morning before work commences and has been found free of gas, and supposing it has been examined just before the shot is fired, and is found clear of gas, and supposing it is free of dust, do you not say, therefore, in the way of danger, to the lamp being unlocked under these circumstances? A Well, there may not be, but still I—[interrupted].

194. Q Do you say yes? A No, I do not, under all those suppositions. I would not; but it seems to me to be supposing too much.

195. Q What is supposing too much? A Supposing there is no dust, and supposing there was no gas just before, and none in the morning; things might occur in such a short time.

196. Q The dust would not change? A The dust might not.

197. Q That is all right? A Yes.

198. Q And if it has been examined before you begin work, and just before the shot is fired and it is found free of dust on such occasions, do you see any possible risk in firing the shot with the unlocked safety lamp? A Not if all these conditions are correct on.

199. Q And the Act absolutely says, under all these conditions, you may unlock the lamp? Q Yes, I know it does.

200. Q Now, with regard to clause 18, "Instructions to employees regularly on means of escape"—not not the practice now for a man's mate, if he does not know the way, to explain to him the road to be taken? A A man's mate?

201. Q There are two men—one man knows the road; or there may be two roads to the place; and the mate is a new hand—does not the other man explain the way to the place? A He will explain the way that he knows himself.

202. Q The man who knows the way will tell his mate anything he knows himself? A He will tell him what he knows himself.

203. Q He will help him all he can? A He will.

204. Q And does not every reasonable man try and find out the different ways to or from his working place? A He generally follows the general one of the mine. There may be ways that a good many of the men do not know anything about, where there are two or three ways.

205. Q You have been a miner for many years? A That is it.

206. Q And search you say so, that every reasonable man, for his own safety, tries to ascertain the different means of getting in or from his working place? A Oh, I think they only generally go the one way.

207. Q It is not a question of getting the men out, it is a question of trying to find out the different ways? A I cannot say that they do try to find it out.

208. Q Take yourself; have not you, for your own safety? A No. I have just simply gone, and I have gone the way that the body of the men go, and there may be other ways and that I would know nothing at all about.

209. Q You mean to say that you have never bothered to inquire? A Oh, yes, I may have inquired.

210. Q Have you not? A Well I might explain it. Suppose I went to a railway station, in a place I had not been to before. On the first morning I went I would inquire the way to the place I was going to, and I would go with men that knew the way to that place, and within a week or two I might require, "Is there any other way out of this place?" and I might get the answer, "Yes, so-and-so," but, unless I have got somebody with me to show me the way out, I cannot find my way out of that place that way.

211. Q You, as a reasonable man, having found the ordinary way to your place, would require whether there were any other ways? A Oh, I would inquire myself.

212. Q And I suppose you would add that any reasonable man would do that? A A man might not think of that sort of thing. I would want to know if there were more ways than one.

213. Q There is nothing in the rules of the colliery that would prevent your making out the different ways if you can get anyone to show you? A No, if I can get anyone to show them. I do not know anything that would prevent me if there is a clear way out.

214. Q Well, what would you suggest for this proposed restriction—that each man should be taken all round the mine? A No. I will tell you what I would suggest. If there were two or more travelling ways out, I would suggest two things to be done. In the first, I would have a set of rough plan of these ways giving the local names of the headings and places, so that the men would know them better, and that would be posted outside; and the men would see, "Well, we will go from so-and-so heading and come here," and they would know exactly from that; and then at each entrance the deputy take the whole of the men out, they are going out, and show them, perhaps, once in a month or two months, or perhaps once in three months.

215. Q There is a quarter? A Yes.

216. Q Then why should you not leave this to be done by one of the men who happens to know the whole of the way? Why do you want to drag the deputy in? A Well, he is a separate man.

217. Q There is nothing responsible in walking out by a different road? A I do not know. I do not know how you are to arrive at one of the men unless he was appointed by some special appointment to do this. I should think that the deputy would know the roads better than the men, and he would take them round and show the way out.

218. Q Suppose you were working in Main No. 1 Kinchla? A Yes.

219. Q Now, we have been told that there are two ways to get to the face there—along the main to the offing road and along the daylight to it. Now, what difficulty would there be in these men who know the daylight tunnel taking out that makes any use of it in the morning along there and showing them? A I do not suppose there would be any difficulty in taking them; but I think if it was left to each individual that they would be inclined to be more careful of walking over the face, but if it were put in one man to do it would be done.

816. Q. If it is left to the miners to look after their safety they would probably not do it? A. Some would, and some would not.

817. Q. And you want a duty imposed on the Company to make the miners look after their safety? That is what it comes to? A. Well, it is partly that, it is that it would be done. You also, if I understand you right, is to leave it to each individual man to find out for himself. May we take one particular man and say to him — (Addressing him.)

818. Q. Now, if the Company give the men permission to know the different roads, you think it is not sufficient, as they would not bother to go? A. I think it would be a failure that way.

819. Q. But what you want is a duty imposed upon the Company to make the men find those escapes for their own safety? A. Yes, to show them, and then, if they did not take it afterwards, well, it could not be helped.

820. Q. Well, would you have a penalty imposed upon the men who did not go? Have them fined? Have that added to the special rules? A. Fined.

821. Q. For not going? A. I do not think I would. I would simply put it there, and I think the men would be only too glad to do it.

822. Q. Supposing the men do not go even that with the deputy, would you propose that they should be fined? A. No, I would not.

823. Q. You would still leave it to their consciences? A. I would leave it then. If a man after that being put in the way would not do it, I would let him stand and let him put up with the consequences. But I do not think he would.

824. Q. Then you are not much farther advanced under your proposal than you are now? A. Oh, I think so.

825. Q. What is the difference? A. I think it would be a great difference if it were put into practice.

826. Q. But your proposal would force the men to go? A. Because I do not think they would need forcing.

827. Q. But supposing some men did, to make some of them doing it would you advocate a penalty? A. No, I would not punish them at all. I do not think they would need it.

828. Q. And you would not be any penalty force the men to discover means for their own safety? A. No, I think they would do it without forcing.

829. Q. But you would force the company to inform one of their officials to try and make them do it? A. Oh, yes, I would do that.

830. Mr. Howe: That would appear as I understood it Mr. Wells, to be the only practicable and satisfactory way of giving the men an opportunity of finding out what routes come out from their working places — because I understood it is not the practice for the Mine Manager to allow the men to go anywhere about the mine they like, or to go out by any route if they like, is to have a lamp to explore. This suggestion is that they should have that opportunity, under the control of the management, stock of properly informing themselves of how they might get out in case their regular breathing road was not, under the circumstances, a safe one.

831. Mr. Wells: But the question has not arisen in that connection here yet. What I put in is this: Supposing the management allow you on certain days to go out in a body without you taking the deputy with you, would the miners go then?

832. Mr. Howe: Yes, that would be a less satisfactory way of doing it. This recommendation puts the man under the control of the management. The suggestion is to make in the interests of the mine so in the interests of the men.

833. Mr. Brown: Well, I have heard Mr. Wagner say he will have the Company to lead the men out, but he would not have the men to follow.

834. Mr. Howe: But he merely says that if the men are weak enough as not to take advantage of this opportunity they must take the consequences. It might be better to make it compulsory on the men at certain regular intervals to accept this offer.

835. Mr. Wells: Q. Supposing you are working at the face of the No. 1 or No. 2 — that is getting in for a mile and then you are nearly 2 miles? A. I suppose it would be something like that.

836. Q. Well, if the men are taken — supposing they had been used to the daylight tunnel — would you take them round the No. 1 main tunnel only, or would you take them round all the cuts throughout the mine? A. I would take them all the different cuts or mistakes. One time I would take them round one way, and another time I would take them round on they would all the men joined on all the ways.

837. Q. We are on the plan that there are two ordinary runs — down the main working way and down the daylight tunnel? A. Yes.

838. Q. What you would have is that they should leave to get out by going round the old left at the back of the furnace and coming down the shaft tunnel? A. Yes. Whatever means there are I would do that would I get the men acquainted with them.

839. Q. Some of those tracks would take a very long time to travel? A. Yes.

840. Q. I want to know, do you propose that that should come out of the time the miner is supposed to give to the Company, or should he do that after the working hours are finished? A. I suppose there would be some arrangement.

841. Q. What do you propose? A. When the deputy has finished his shift and the men have finished their shift, he has got to come out and they have got to come out, and all the difference I see is the difference in the length of one traveling road and the other.

842. Q. Would you have that done so as to give the Company the full time of the men at the face, as they have now, or would you take it out of the Company's time? A. I would take it at the conclusion of the shift, when the men are coming out.

843. Q. When they have finished their work? A. When they have finished, when they are coming out, I would bring them out that way.

844. Q. Now, I want to ask about these roads — the mines are good for cutting these manholes? A. Yes.

845. Q. At what rate are they paid for this kind of work, as present? A. Well, usually manholes are done by day work. I do not know of any that have been done by the yard or the ton, but usually they are done by the shift men.

846. Q. Always? A. Not always. I said not always.

847. Q. Do the miners do the work? A. Sometimes the miners.

848. Q. Well, do they get paid the ordinary tunneling rate, or something extra, for cutting these manholes? A. I could not say; I never did any of them.

- 543 Q. You have no idea what the rate is? A. I cannot say whether they get paid extra or whether they get the usual rate or not, I have never done any of them.
- 544 Q. What use do you propose they should be? A. 6 feet high, and 8 feet in, and 8 feet wide.
- 545 Q. Then you have no idea whether there is a special rate for cutting manholes at present, or not? A. I could not say. All that I know is that in the great majority of cases they have been cut by day work.
- 546 Q. Now, with regard to the cut-throughs, would you give us any idea as to how much they would be increased in number by your proposal? You propose to have three every 30 yards? A. Yes.
- 547 Q. And the holes run now very often over 100 yards—do they not? A. Oh, yes, I choose they do; 100 yards or over.
- 548 Q. Would it be a fair thing to say that it would mean having four times as many cut-throughs as there are now, speaking on an average? A. Oh, I suppose in a 100 yards band there would be four; but I do not know whether it would be four times as many.
- 549 Q. How long do you drive now without a cut-through—from your own experience? A. I think it runs about 25 yards, but it is the regular thing; it is supposed to be the regular thing, but sometimes they go a good deal further.
- 550 Q. You said they go in 100 yards very often? A. The holes.
- 551 Q. Before they drive a cut-through? A. 100 yards.
- 552 Q. You said to a moment ago? A. I do not know that I did.
- 553 Q. I ask you what increase in the number of cut-throughs it would mean? A. I cannot say.
- 554 Q. Well, you are in that 4th left of No. 1 travelling road there are holes that are a good deal more than 100 yards without a cut-through. I think Mr. May told us there were some of 200 yards? A. Well, no cut-through.
- 555 Q. Yes. Well, if you put in four in that space, supposing it was only 100 yards, it would just about multiply the number of cut-throughs by four? A. Oh, yes, if they drive them that distance without a cut-through.
- 556 Q. You are paid for that a special yardage rate in addition to the boring rate? A. Yes.
- 557 Q. And the men have received an increase in their yardage rate from the Automobile Coach lately, have they not? A. Yes.
- 558 Q. Do you not know that? A. Yes, he is 50 a yard.
- 559 Q. And it used to be what—10? A. 10 to 15, I think.
- 560 Q. You get back of all your earnings, do you not? A. Yes.
- 561 Q. For cutting these cut-throughs? A. You get your earnings.
- 562 Q. Think in 10 1/2 now? A. Yes.
- 563 Q. And an addition to that you get what is called a yardage rate; and it has been between 10, 15, 20, but now has been raised to be 50 a yard? A. Yes.
- 564 Q. So that that would be an increase of cost to the mine-owners for these cut-throughs? A. Yes.
- 565 Q. And a gain to the miner too? A. Well, I suppose it would be.
- 566 Q. Why did you furnish the data for cut-throughs every 30 yards? How long ago? Was it last week? A. Yes. It was a recommendation from the DeLorge Board.
- 567 Q. When? A. Last week.
- 568 Q. And this increase to 50 1/2 had been given before that? A. Yes.
- 569 Q. Before you made the recommendation? A. Yes.
- 570 Q. Now, while we are on these cut-throughs, supposing you had a good pressure overhead, you would want big pillars, would you not? A. Yes, I suppose you want a good pillar, the greater the pressure.
- 571 Q. The bigger the mine, the bigger the pillar you want? A. Yes.
- 572 Q. The bigger the solid pillar? A. Yes.
- 573 Q. And that means solid coal? A. Yes.
- 574 Q. And do you not think cutting it up into them bits every 30 yards would weaken it? A. No, I do not think that driving it in would weaken it. I cannot see that it would. I do not think it would make any difference.
- 575 Q. Would you be prepared to put your own opinion against that of an experienced Mine Manager on that point? A. No. It is only my opinion; that is all. I just give it as an opinion. I do not think it would make a great difference in the pressure.
- 576 Q. Do you think it would make some difference? A. I do not know whether it would or not. I do not think it would. The taking out of a small piece like that would not make any difference to the pressure.
- 577 Q. If you were doing that every 30 yards, all over the mine, do you not think it would make any difference? A. No. I do not think it would make any difference.
- 578 Q. But you say you would not put your opinion against that of a Mine Manager? A. No. I do not put my opinion against anyone's.
- 579 Q. Do I understand that you do not rely upon hammering? You do not trust it? A. Oh, yes. I trust the hammering, but I think it would be better to have these cut-throughs as well. It would be a double protection.
- 580 Q. You said that one of the objections is that the hammer might cut and interfere with the ventilation? A. Yes, it does do so.
- 581 Q. Now, if it has sagged and interfered with the ventilation, the mine would soon discover that? A. Oh, yes.
- 582 Q. Very quickly? A. Oh, yes.
- 583 Q. And it could very soon be remedied? A. Oh, yes, all things can be remedied.
- 584 Q. Can you tell me of any danger there is from working with these holes in lengths of more than 30 yards, with hammering up to the face? A. No. I do not know that I can point to anything particularly. All I can say is that I think the cut-throughs would be additional safety. I do not prefer to rely on hammering to that length of distance.
- 585 Q. Now, supposing you are going to drive about, say, 500 yards; under your plan you put a cut-through at the first 30 yards? A. Yes.
- 586 Q. What do you do after you have passed that—and it is up? A. No, you leave that until you come another 30 yards, and put that one open, and then cut that other one up and have the other cut-through through, and keep the air going until 30 yards of the face.

- 992 Q And you have still the chance of the heaviest in that 30 yards sagging? you can that sink still?
A Yes.
- 994 Q And what would you do while the net through were being driven,—would you get the net to draw that out though? A Yes, the way that is working in the place would draw that out though.
- 995 Q Just draw me on a piece of paper how you work this—show me what you mean—how would you work your net through in the land? A I do not think I can draw a plan. I do not think I can do it.
- 996 Q Do you know that this position about 30 yards out-though was at the old Act? A Out-though every 30 yards? A I cannot say. It may or may not have been. I do not remember.
- 997 Q And that it has been left out of the present Act? I suppose you know that? It is not at the present Act? A No.
- 997 Q Now, with regard to them 15—"Instruments at the bottom of the upset"—what instruments would you have at the bottom of the upset? A I do not think I said I would have any there.
- 998 Q Supposing you had a barometer? A Well, if we had a barometer I suppose I would have a barometer and a thermometer.
- 999 Q The barometer would show what? The pressure of the air? A The pressure.
- 1000 Q Do they have water-gauges now, do you know? A Well, I suppose they have. I do not know much about those things.
- 1001 Q Do you know what they show? A No. I do not know what they show.
- 1002 Q You do not know what they are there for? A No.
- 1003 Q What do you expect to get out of having these things that you ask for? A Well, it would be a guarantee for the men that was there if there was anything covered—if there was any change.
- 1004 Q Change of what? A Change in the air.
- 1005 Q What do you mean by change in the air? A Well, I understand that a barometer shows you any change at the various times of the air.
- 1006 Q The pressure of the air? A Yes.
- 1007 Q What would that indicate do you think? A That is all I can say about it.
- 1008 Q What does that mean? What does that indicate? A I am not able to answer that question. I cannot answer you.
- 1009 Q But you have agreed to the proposal? A Yes. I agreed to it on the broad principle that a man would be these understanding these things—that instruments of that kind would be necessary for him, to show him these things that may come.
- 1010 Q What do you expect when the changes are shown to him? A Well, I expect that if that change showed him that there was any danger he would take steps accordingly.
- 1011 Q How would that show danger? A I do not know much about it.
- 1012 Q You see what you know about it. You have treated these things? A I do not know much about it.
- 1013 Q What is the work of your route at South Clifton where you work—your barometer? A About 12 feet.
- 1014 Q And what is the space between the ship-side and the rib-side? Is there room for a man to stand? A I do not know that. We do not stand on it there.
- 1015 Q You do not want it on the South Clifton then? A No. We do not stand on it there.
- 1016 Q As a matter of fact is not there room to stand against the rib-side while the ship goes by, when on the bank-side? A Yes.
- 1017 Q And even for a dozen men to stand, if necessary side by side against the rib? A Yes, in the majority of places I do not know there would be room for the men to stand. I have not been in there for a very long time.
- 1018 Q And is it not a fact that men take on very seldom need there? A They are very seldom need there.
- 1019 Q At Clifton? A Yes.
- 1020 Q Now, does 14—"Menages compelled to give more personal time and attention to management of colliery"—You only refer by that to his going underground? A Yes, to work underground.
- 1021 Q Does it mean that about three times a month at South Clifton—that is where you are speaking of? A Yes.
- 1022 Q Then am I to understand that he would probably be round the whole of the pit three times every month? A Oh, no. He might be in portions of the mine where I would not see him.
- 1023 Q Of course you would not see him? A What I understand by your question is that he might go down the mine and I not see him?
- 1024 Q No. I suppose he takes it in rotation, and pays a visit to each part of the mine in turn? A Oh, yes, I suppose he does.
- 1025 Q He comes down it all in one day? A I suppose he might.
- 1026 Q But it would be a big order? A Yes.
- 1027 Q Then if you see him three times in a month, the probability is that he goes round the whole mine three times in a month in rotation? A Oh, yes, possibly it might be more than that.
- 1028 Q And besides your ordinary surface work at South Clifton, you have other work? A Yes.
- 1029 Q And there is the railway work; that comes right up to the pit head? A Yes.
- 1030 Q Now, you say you would have the whole of the mine watered under item 13, every road? A The main road and the travelling road.
- 1031 Q Only those two? A Yes.
- 1032 Q Is every part? A No. I only said that I thought if there was water in the other parts it would be all the better.
- 1033 Q But you would not make it compulsory? A No.
- 1034 Q And do you refer to the floor of the road only,—would that be sufficient? A Well, unless there was something exceptional, I think that if the floor was well watered it would do.
- 1035 Q It would make it colder? A It would lay the dust and make it a bit colder.
- 1036 Q Is that the ground on which you recommend the watering of the road? A Yes, I think it would lay the dust and would not be the best place once.

- 907 Q Now, with regard to the lamps under them 12—what you say is, regard to Mount Kembla is that on July 11th the lamps were not ready for use? A Yes.
- 908 Q The oil was not in them? A No.
- 909 Q And the wicks were not trimmed? A No.
- 910 Q But whenever the lamps were in order, were they not? A Otherwise, from that.
- 911 Q Yes? A Oh, yes. The lamps were fine, but they had neither oil nor wick in them.
- 912 Q Once you put the oil and the wicks into the lamps you were able to use them? A Well, we did use them in the fore.
- 913 Q You were able to use them? A Yes.
- 914 Q Now, what is your reason for making this claim about doors—that the doors should be self-acting? A Well, I think it would be extra security. Relying upon a man to close these doors, of course he may not. He may think they are closed.
- 915 Q It takes the responsibility off the person's shoulders? A No, it does not. If he did not hear that door close he would have to go and see. There might be a piece of coal, or stone, or wood. He would have to go and see that it was closed. The responsibility would be still there, but it would make it doubly sure that it did close.
- 916 Q You have a special rule at your millery? A Yes.
- 917 Q Have you a special rule that every man, that passes through a door must close it after him? A Yes.
- 918 Q And, if the door is self-acting, of course you would still have the rule? A Yes, I would still have it there, because, although the door is self-acting, there might be still some little thing happens to stop it.
- 919 Q So that, although they are self-acting, you would still make the men see that they are closed in each case? A Yes.
- 920 Q That is not much use, is it? A Yes, because it makes it doubly secure. We all naturally listen for the door closing, and, if we do not hear it close, then we want to know why it did not close. Why, even with a self-acting door, there might be some little thing came out of it a wick, and let work be there to see why it did not close. The bang of the door would let him know whether it closed or not.
- 921 Q You find the door is open in very brief—in a minute is a few seconds? A Yes.
- 922 Q You just push it open for the horse or the sheep to go through? A Or a man; or it may be a string of wire. It is not a very long time.
- 923 Q You do not lose much time by the operation? A I do not know how much they lose—according to the length of time, I suppose.
- 924 Q Under ordinary conditions, a man just going through? A If it were one man it would be seconds.
- 925 Q If there were a string of men going? A It would be as many more seconds. I do not know how many that would be.
- 926 Q Take your own millery—do you get strings of men going through at a time? A Yes; very often we might have six, or eight, or twelve men coming out at one time, as going in through these doors, and the door would be open.
- 927 Q While the men went through? A While the men went through. It might be only one man; but still it might be six or eight.
- 928 Q Now, as regard to these double doors, class 10. That is only for the purpose of preventing the escape of air? A That is it.
- 929 Q That is not for any further security in case of explosion? A One door would be closed while they were working with the other open.
- 930 Q It would not be any further security in case of explosion? A No; only for the regulation of the air.
- 931 Q Now, the measurements of air are taken at present—is it monthly with you? A I could not say. I do not know of my own knowledge how often they take them. They may take them often. I suppose they do have it at all events monthly. But as I do not see them of course I cannot say.
- 932 Q Are they recorded in a book? A Yes, I suppose they are.
- 933 Q And if the air became deficient you could very easily tell it in your working place if you get short? A Oh, yes, if it fell off to any great extent, we would be able to tell it.
- 934 Q Now, with regard to your reasons for having 500 feet, have you any figures at all as to what a horse actually gets over—say, in your own millery? A No. I could not tell you in figures.
- 935 Q As far as you know, does he get exhausted? A Yes. I think they do get sufficient air in that particular millery. They are very little ones, they are not much bigger than mine.
- 936 Q Have you got any waste workings at Clifton (phone 1)? A Yes. There are waste workings there.
- 937 Q Of any extent? A I could not say the extent. I do not know.
- 938 Q Do you know how they are dealt with? A No. I do not even know that. I have not been near them.
- 939 Q Have you had any experience of working with a furnace for ventilation? A Experience with a furnace?
- 940 Q Working at a mine where they use a furnace instead of a fan? A Yes. I worked at Ball.
- 941 Q How many years ago was that? A A good many years ago.
- 942 Q How many—where? A Somewhere like that, perhaps Keweenaw.
- 943 Q That is the only place? A That is all the furnace.
- 944 Q Now, how long have you been at South Clifton yourself? A Oh, about twelve or thirteen years, something like that.
- 945 Q How long have you been there? A Yes. They have been there some.
- 946 Q How long is that? A It is only a few months, that is all.
- 947 Q Then one man is picked out for the purpose of being the clerk? A Yes.
- 948 Q On your way that the men you have at South Clifton were not competent? A No, I cannot.
- 949 Q On your way he is competent, as far as you know? A As far as I know, he is. I do not know, you say.
- 950 Q How long has he been in the mine? A I think there are twelve or three of them. I think one of them has been there about six years or eighteen months, another one perhaps a little more—about that, something like ten or eight or twelve and two years.
- 951 Q Now, these thirty six—of them—how many of the men? A Yes.

- 582 Q And can control the men and order them about? A Yes, control the men in these districts.
- 583 Q And a good deal of the smooth working of the men depends upon the way the deputies handle the men? A Yes.
- 584 Q A good deal depends on their personal character and tact and judgment? A Yes.
- 585 Q And there are things that the Managers could ascertain by observing the men from day to day? A Yes. He would have to chat with them to get it.
- 586 Q And those you select are very important elements in showing a deputy? A Yes, all these things go to make a good one.
- 587 Q I say they are important elements. Are not they? A Yes.
- 588 Q I do not ask the question in an offensive way at all; but I do not suppose you have made a study of the chemistry of glass, have you? A No.
- 589 Q But you know perfectly well when you come across the deputy? A Oh yes. If I come across that I would know that much.
- 590 Q That is from your long experience? A Yes.
- 591 Q And you know what black-deep and? A Yes.
- 592 Q And you know what a roof is (laughter)? A Yes.
- 593 Q And you gather all these things from practical experience? A Yes, that is all.
- 594 Q And I suppose you would not like to lay on consultation with a man before you with you and ask? A I would not attempt it. I have not self-confidence enough for that.
- 595 Q But you feel yourself perfectly competent as a practical man to deal with the ordinary events of a day in a mine? A Just the events they present themselves to me, that is all.
- 596 Q Now, just now word about your examination on April 26th—I understand that, whenever it may be, you believe this explanation begins at Arthur's place? A Yes, I think it commenced in the vicinity of that, as far as I could tell.
- 597 Q That was a place pointed out to you? A We all went along and looked; and that is a place that struck me with signs of force.
- 598 Q Was that the place with a smaller pillar working above it? A That was a place where Arthur had just commenced a pillar, he could not have worked many days so.
- 599 Q Were you all there—all the party? A Yes, I think so.
- 600 Q All together? A. Within a few yards of each other.
- 601 Q You examined that place? A Yes. We were never very far away from each other going round.
- 602 Q And I suppose you discussed these things when you saw these signs of burning and charring there? A I do not say there was any discussion.
- 603 Q I suppose you expressed your opinion there that that was the place? A I do not remember that we did. I do not remember anything particular being said at all.
- 604 Q I did not say anything particular. But you found that place in your own mind as being the place of the origin of the explosion? A Yes. That struck me as being the most likely place that I saw.
- 605 Q You were there to find out the origin of this explosion? A Yes.
- 606 Q Did not you mention that to some of the party? A I do not think I did. I do not think I had much to say to anyone.
- 607 Q Mr. Symph? I submit, Your Honor, he has answered three or four times.
- 608 Q Mr. Symph? There is nothing in the witness's manner or style to suggest that he is not telling everything that he has in his mind as truthfully as he possibly can. Judging from the manner of the witness all through, I should take him to be a remarkably reliable witness.
- 609 Q Yes? A Yes. I do not suggest any imputation against him for a moment.
- 610 Q Mr. Symph? He cannot know more than he does. He cannot remember more than he knows, but if you can suggest something he might remember it. You might recall something to his memory.
- 611 Q Symph? If I try to recall to any one of the party about Arthur's place I think I would remember it, but I do not remember it.
- 612 Q Mr. Wash? Q. Was this matter mentioned by you or by anybody? A No. I do not think it was.
- 613 Q Either at the place, or have you discussed it with any of the parties there? A No. I have had little or nothing to do with any one about it.
- 614 Q Do you mean that you have told no one about it at all? A No. I do not think I have told anyone at all.
- 615 Q You have not told one of the party? A Not one of them.
- 616 Q And this party went in as a party of miners did they not? A Yes.
- 617 Q To ascertain the cause of the explosion, the cause of the disaster? A Yes.
- 618 Q And where it began? A Yes, if possible or more.
- 619 Q And you say you have never mentioned this fact to a single man since? A No. I do not remember mentioning it to anyone.
- 620 Q Was there any occasion for a discussion of it? A No reason whatever. I would just as soon have spoken about it if it had come into my head; but I do not suppose it did.
- 621 Q Did you trace the course of the explosion—in what direction it went after Arthur's place? A No, I do not think I did. I could not say the direction it went.
- 622 Q When you were present, there has been no discussion among the miners, either the officials or the miners, as to where this began or what the cause was? A There has been none, so far as I am concerned. I have not discussed it.
- 623 Q It has not been mentioned in your presence? A No.

Cross-examination by Mr. Deane Smith—

- 624 Q What is your age here as to mining? Have you ever been out of this district? A No.
- 625 Q You have not been to Newcastle or to Walsingham? A I have never worked in a colliery in any other place than this district.
- 626 Q Have you ever worked in England? A Yes. I have worked in the North of England.
- 627 Q For how many years? A I have been twenty-five years out here—oh, I suppose, about thirty or fifteen years at home.
- 628 Q In what locality? A All in Durham.

Witness—J. Hughes, 7 January, 1906.

1029. Q And have you always been a miner—always worked at coal-getting? A Yes, with the exception of some slight breaks.
1030. Q I do not mean as to the continuous character of your employment; but you have never worked in any other capacity, not that of a miner? A No.
1031. Q You have never been in any responsible position as Manager, or under-manager, or deputy? A No, nothing of that. I had to get out of all the time.
1032. Q Now, when you worked, I think you said six weeks, but it was about nine days after the accident—how that does not matter—you only went in once afterwards? A That is all.
1033. Q Who led you in on that occasion? A There was a man of the name of Morrison there.
1034. Q John Morrison? A Morrison. A deputy is it now, I think.
1035. Q How came you to go up to Andrew's place, that particular part of the mine? A Well, this was a place we came across in the usual course, as we went along. We did not go specially to this Andrew's place.
1036. Q What distressed you as to whether you should go up to the Shaft District or not? A No, I Right? A I think it was understood that we should visit that part, No 1 District, that was all.
1037. Q You went up there, of course, with the intention, as Mr Wade has put it to you, of ascertaining the cause and the locality? A Yes.
1038. Q Did you take any notes at all? A No, I did not.
1039. Q Did anybody else take any notes? You had Mr Kay with you? A Yes.
1040. Q Did he take any notes? A Well, I believe he did, take some little notes, but I am not exactly sure, but I think he did; but, still, I am not too certain of it.
1041. Q Do you know of anybody else who took any notes that you saw? A No, I did not see, I fancy that Mr Kay took some notes, but I would not be sure.
1042. Q Did you ever see any notes that were taken afterwards? A No, never, not a shadow of one.
1043. Q There were half a dozen of you? A Yes.
1044. Q Did you ever meet together afterwards to discuss the cause of the accident? A No, we never met afterwards. We just came away and— [Interposed]
1045. Q And you did not discuss it to the mine? A Well, we talked. Now and then we had bits of gossip, but I do not know whether there was any discussion—just talking and guessing about.
1046. Q I take it you all went in and formed your individual opinions, and came out again? A So far as I know, they did. That is all I did, perhaps.
1047. Q And you never put your heads together afterwards to compare notes? A No.
1048. Q And you do not know their opinions? A I do not know what their opinions may be.
1049. Q Did you never report to anybody what conclusions you had come to? A No, I did not.
1050. Q I do not mean a really official, but the body? A No.
1051. Q Were you appointed to go at all? A We were appointed to go in, yes, and we simply reported that we had gone in.
1052. Q Who appointed you to go in as a body? A, I received my instructions to attend from the General Secretary, Mr. Harkin.
1053. Q That is all you know? A That is all I know.
1054. Q You were told that you were one of a party appointed to go in and investigate? A Yes.
1055. Q And yet you never reported? A No.
1056. Q And never compared notes? A No, I did not, perhaps.
1057. Q Then, as far as you are concerned, you never really responded to the delegation, you never reported what you saw, or what opinion you formed? A No, I never reported anything.
1058. Q Now, you did form an opinion, you tell us? A Yes.
1059. Q But of a very vague character? A Well, that may be.
1060. Q I mean the only man among you appear to have come to it that it originated near Andrew's working place? A Yes.
1061. Q You do not know what gas that it was? A No, I do not.
1062. Q And, in expressing your opinion, you stated any evidence that you believe it came from was that little gas at 27 yards or there, or the 25-acre gas? A No, I really could not say.
1063. Q And you knew the distance from one to the other? A I do not know the exact distance.
1064. Q Something like 10 or 15 chains apart—you cannot go any nearer than that? A I could not say.
1065. Q Do you consider your opinion of any value as to the locality? A Well, I put it forward— [Interposed]
1066. Q I mean do you put it forward as of any value? A No; but it was the best idea I could come to at the time.
1067. Q That is the best you could do? A Yes. I do not put it forward with any great deal of confidence.
1068. Q You told to Mr. Wade that your reason for concluding that it originated there was that you saw signs of force? A Yes.
1069. Q Did not you see signs of force in a great many places? A Yes.
1070. Q Did not you see signs of force down No. 11? A I saw it on the main road, and in various places there were signs of force.
1071. Q So that the presence of signs of force is not your reason for saying that the explosion originated where you saw the signs of force? A Well, yes, I think I would say that the signs of force in that particular place helped me to believe that that was the place where it originated.
1072. Q You saw signs of force down here at the beginning of the 25-acre gas? A Yes, I saw signs of force all the way down here [indicating on the plan].
1073. Q You saw signs of force in many places, 25 chains apart? A Yes.
1074. Q Did you observe signs of force going in different directions—opposite directions? A Yes. It seemed very peculiar to me that there should be signs of force perhaps here and away up, and then a comparatively close place had these signs of force again in different directions, only I cannot describe the exact positions of these lines in many.
1075. Q And did you see that kind of thing—evidence of opposite forces—in several places? A Yes. I saw them in three or four places.
1076. Q Signs of opposite forces, with other places, in some cases in between? A Other places in between.
1077. Q Now, with regard to these suggestions, I only want to find out to what extent you are relying them on experience of your own. Did you know these yourself? A No, I did not.

1078. Q Did you take part in framing them? A Yes. I was there when they were brought forward. That was all. I was simply present when the recommendations were brought forward.
1079. Q That is what they were completed? A Yes.
1080. Q But did you take part in framing them? A No.
1081. Q Then the first time you know anything about these twenty suggestions was when they were submitted to you? A That is it.
1082. Q Were you asked to support them? A Yes. They were placed before me.
1083. Q Do you profess to have enough experience to support the whole twenty apart from your being asked to do so? A Well, after I heard them read and discussed, and so on, and looked into them, I did.
1084. Q The whole twenty? A Yes.
1085. Q Unanimously? A Yes, the whole twenty of them, just as you have heard me speak today.
1086. Q Now, take first of all the No 1—do you know to what extent certificates are now required by Managers? A To what extent?
1087. Q Do you know whether certificates are or are not required by Managers now? I only want to see the extent of your knowledge? A Yes.
1088. Q Do you know whether Managers require to be certificated now? A Yes.
1089. Q That recommends that that should be required? A Yes.
1090. Q You know that it is being done, do you not? A Yes.
1091. Q Do you know that water managers require to be certificated? A Yes.
1092. Q Then you are recommending that something should be done that is done? A Yes; but men may come in on service certificates.
1093. Q But that is not expressed here. Do you mean to say that men come in on service men without certificates? You mean that, when certificates were introduced, men who had served a certain time were allowed to practice as Managers without certificates? A Yes, without examination. I mean that they should pass an examination.
1094. Q Have you read this, "Managers, undermanagers, deputies, and shift-foremen, to hold certificates of competency by examination, and to have had five years practical mining experience, before being eligible for the respective positions"? A Yes, they all have to hold a certificate.
1095. Q Yes, are recommending this for the future? A Yes.
1096. Q So that this does not really annoy what you mean? A Well, I was in for it more on account of the dispute and the difficulty, because I was not aware that they had any certificate, and I thought that would bring them in, and that is the reason why I approved of it.
1097. Q I tell you candidly I am trying to test your knowledge and experience of the things that you are undertaking to endorse. Now, what is your opinion as to the qualifications that are most requisite in a shift-foreman? I want to see to what extent your opinion is of value to the Commission? A I do not think he would want to know anything more than to know something of gas.
1098. Q How do you mean to know something of gas? A That he would be able to test for it.
1099. Q That he should be able to tell the presence of gas? A Yes, and whether there was a sufficient quantity of it to know whether the place was dangerous or not.
1100. Q That is practical experience, is it not? A Yes, a sort of practical experience.
1101. Q Well, is the sort of practical experience that a deputy gets? A Yes.
1102. Q Where do you get that practical experience? A The deputy's practical experience?
1103. Q No, the practical experience that is necessary for a shift-foreman? A, if it was practical experience, he would get it by doing it.
1104. Q Is the mine? A In the mine.
1105. Q What examination are you recommending the Commission to require from such a man? What sort of examination? In what? A I would like him to show that he could recognize the danger when he saw it, and know what to do.
1106. Q What do you propose that he should be examined in? I want to see the extent to which you understand the propositions you suggest here? What are the subjects you propose he should be examined in? A, I would examine him about the methods of discovering gas in the mine.
1107. Q You could discover gas, could you not? A Yes; but there may be men put in the position of shift-foreman that could not.
1108. Q You could hold up a safety-lamp? A I suppose so.
1109. Q And you could hold up a hydrogen flame lamp? A I suppose I could.
1110. Q You know the effect upon a hydrogen lamp of the presence of a minute proportion of gas? A Yes.
1111. Q Do you think you are competent to fire a shot? A Well, there may be other things.
1112. Q That is all I want to get at. What would you examine such a man in? A Well, that is pretty well what I would do. I would see that he could recognize the presence of gas, and know what to do if there was a quantity there to get rid of it before he fired the shot.
1113. Q Does it not look down to this, that you would require a man to be able to hold up a hydrogen lamp and test the presence of an infinitesimal portion of gas? A Yes. He would certainly have to do that.
1114. Q And you would give that yourself? A I suppose I would.
1115. Q Who do you propose should examine the man in that? Do you mean men of Mr. May's stamp? A I do not know Mr. May.
1116. Q Is that the sort of man you would leave the examination to? A There are a band of Managers.
1117. Q At any mine this is the sort of examination you propose for a shift-foreman? A Yes.
1118. Q Now, do you think any Manager would appoint a man or a shift-foreman who did not know how to hold up a hydrogen lamp? A I would not think so, but he might.
1119. Q Do you tell the Commission that there is a danger of the Managers of a mine appointing somebody as the mine or a shift-foreman who did not know how to test for gas with a hydrogen lamp? A It is quite possible for a Manager to be deceived by a man. The man might give an exaggerated amount of his own abilities. He might say he could do it, and when he got there he could not do it.
1120. Q With regard to these same workings have you compared notes with any of the other people who are recommending these things? A No. I have not compared notes with anybody.
1121. Q I understand you do not approve of sending off the wastes? A Not if it is particularly to ventilate the mine.

1152. Q. You do not profess to know very much about it? A. Not a great deal. I recommend it just on the grounds that I say; but it would lay the dust and make the air cooler.
1153. Q. You cannot suggest the methods? A. No. I would leave that to the people who do it to discover themselves the best method and the most economical.
1154. Q. Now, with regard to No. 14—? Managers compelled to give more of their personal time and attention to management of colliery. More than what, do you mean? A. Well, I think that three or four days in a month. — [Interposed.]
1155. Q. You have met and that, you say, you are in South Clifton, how often does the Manager go through your mine? A. I think I visit that, personally, I thought that I had seen him—perhaps, three or four times a month, perhaps sometimes he might be in often, perhaps, other times not so often.
1156. Q. Then, personally, you are visited with what goes on in your own mine? A. Yes.
1157. Q. And you have heard that it is not so in other mines? A. Yes.
1158. Q. Then you say he should go through here often? A. Once a week.
1159. Q. The Manager is under-manager? A. The Manager.
1170. Q. That is your own personal opinion? A. Yes.
1171. Q. That is in addition to the visits of the under-manager? A. That is it.
1172. Q. I think you told Mr. Wade you really do not know what would be the purpose of these examinations at the bottom of the shaft? A. No. I do not know anything about that.
1173. Q. Is that once a week for every colliery, or does it depend upon the size of the colliery? A. Well, I think it is a smaller colliery he might perhaps get down often.
1174. Q. I am not speaking of how often he could get down, but of how often in your opinion it is necessary for the safety of the mine that an Inspector should go round a small mine? A. Oh, I think it does once a week in any mine.
1175. Q. And you would have the same time for all of them, large or small? A. Oh, yes. I would leave it to their own judgments whether they want often or not, in a small mine; but I would have them to go round once a week at all times.
1176. Q. With regard to No. 18, can you tell me of any cases that have come under your experience in which a black list has been sent from mine to mine? A. No. I never know of a small.
1177. Q. You are suggesting a case for a district which you have never seen? A. I have never seen it. I have simply heard of it, though.
1178. Q. And with regard to No. 20, can you bring before the Commission any instances in which the practice that you provide against there has existed? A. What is that?
1179. Q. Surely lamps not to be unlocked for shot firing. Has a you ever known a case? A. No, I cannot say that I have.
1180. Q. In all your experience? A. I cannot remember any particular case.
1181. Q. Have you had any case brought under your notice? A. No.

Re-examination by Mr. Llewellyn —

1182. Q. Regarding this inspection on the 15th August, is it a fact that you were directed — [Interposed.]
1183. (Mr. Wade objected in the form of the question. His Honor upholds the objection.)
1184. Mr. Llewellyn: Q. Was any direction given before you entered the mine as to the observations which you were to make personally? A. Any direction given?
1185. Q. Yes, from any person, as to any instructions you might hear? A. No. I do not remember anyone giving any directions. No one spoke about such a thing.
1186. Q. You know that by these special rules of each colliery there is a prohibition against miners leaving their working places? A. Yes.
1187. Q. Do you know that it is specially prohibited by the rules? A. Yes.
1188. Mr. Wade: Q. Without leave? A. Yes. He gets permission of course.
1189. Mr. Llewellyn: Q. From whom has that permission to be obtained? A. I should take it so from the Manager.
1190. Q. Is there more than one exit from your colliery at South Clifton? A. No. There is only the one there that I know of.
1191. Q. May there be some others that you do not know of? A. There might be. I only know the one way.
1192. Q. How long have you been working there? A. Twelve or thirteen years.
1193. Q. If the shutting of the miners out was left to a miner, would it be easy or difficult to find a miner who would know such and in your mine? A. Oh, he would have to be a very old hand, and even then he might not know.
1194. Q. And would there be any danger of his leaving the mine, perhaps into a dangerous part of the mine unconsciously? A. Oh, there is always that danger. He might think he knew it, and might make a mistake.
1195. Q. Regarding Mr. Wade's suggestion that a miner being invited to go and see the way out and not turning up — [Interposed.]
1196. Mr. Wade: [It was a question I asked.]
1197. Mr. Llewellyn: Q. A question is suggested—in your opinion would there be any men in the district who would do such a thing?
1198. (Mr. Wade objected. His Honor said he did not think it worth while to have that evidence one way or the other.)
1199. Mr. Llewellyn: Q. With regard to those recommendations by Mr. Smith as to those recommendations, were those recommendations made at the last Delegate Board Meeting?
1200. (Mr. Wade objected.)
1201. Q. When were they made? A. At the last Delegate Board Meeting.
1202. Q. How many Delegate Board Meetings, have there been since the Commission was appointed? A. I do not think there have been a few.
1203. Q. With the exception of this one? A. I do not remember any.
1204. Q. When, please, did you hold in the Delegate Board Meeting? A. I was chairman.
1205. Q. Were the resolutions discussed at that meeting? A. Yes.
1206. Q. In detail? A. In detail.

- 1207 Q What is the average size or the average distance for these cut-throughs now as a general rule?
 1208 Mr. Wade] I suppose you mean at South Clifton?
 1209 Mr. Rogers] Q Well, as far as you know in any other mine, what is the average distance of these cut-throughs? A I am not sure on that point. I could not say for other collieries, but I think about 35 yards.
 1210 Q If the breathing gets discouraged, say 30 or 40 yards from where the miner is working, has he any means of knowing that it is the breathing that is discouraged, and cuts off all air, unless he goes back and looks?
 1211 A No. There is nothing to tell him, until he goes back to see what is wrong, and then he will find out.
 1212 Q Now, regarding the watering, if the conditions were dusty would it be sufficient, in your opinion, to water the floor? A Oh, if they were exceptionally dusty they would want the roof and sides doing too.
 1213 If they were extra dusty.
 1214 Q Did you ever have a hydrogen flame in your hand to examine? A No. I never had one of them in my hand.
 1215 Mr. Wade] You mean a lamp, do you not?
 1216 Mr. Rogers] Q A hydrogen lamp.
 1217 Q Do you consider yourself competent for the position of a deputy? A No.
 1218 Q Would you consider yourself competent now to be a shaft-lift? A Well, I do not know. I would have to see the conditions, I suppose, that I would have to go through.
 1219 Q I think you answered Mr. Wade that you considered you were competent to deal with the ordinary events of the mine. Would you, with all your experience, consider yourself competent to deal as a deputy or shaft-lift with the extraordinary events? A No. I would not like to take the responsibility.

Examination by Mr. Robertson —

- 1219 You said you would give the Inspectors advice to give to order safety lamps? Yes.
 1220 Is that a general power applying to all mines? A Yes. My meaning would be that, wherever the inspector thought it was absolutely necessary to put these lamps on, I would give him the power of saying whether they should or should not go on.
 1221 Q Would not that apply to many mines only? A Well, a mine might in the opinion of some be considered not dangerous, and the Inspector might consider it to be so.
 1222 Q So there might be a difference of opinion? A Yes.
 1223 Q If there was a difference of opinion, the Inspector might be wrong? A Certainly he might.
 1224 Q Do you not think it would be justice to give the Manager or the owners the opportunity of proving that there was no gas and so no necessity for safety lamps? A In my opinion you have to give somebody the say. You cannot leave it to too many. And I think the Inspector is the fittest man of the mine to be the judge of it. I mean you would naturally look to him from his position.
 1225 Q But you know that, under the Act, in case of any defects that are not provided for by the Act the Inspector may, if the management refuse to remedy them, take it to arbitration? A Yes.
 1226 Q Are you aware that, with reference to these safety lamps, he has no such power, it having been already provided for in the Act? A I could not say. It may be so.
 1227 Q Would it not meet the case if the Inspector had the power to refer the question of safety lamps to arbitration? I would not be fair to both parties? A I do not know. In my opinion it is a fair thing. I do not think he would use it arbitrarily. I will think the Inspector should have that amount of power at all events.
 1228 Q No doubt, but he is only human? A Certainly.
 1229 Q And he may be mistaken? A Yes. Anyone is likely to do that—Managers too. He may make a mistake, but I think it all points the other way, and that he would be very careful and would not do so, and that he would not order them without some reasonable grounds that they should be introduced.
 1230 Q May be. I quite admit that. But an absolute power such as you suggest is almost too much to place in the hands of any human being? A I prefer to put that power in his hands to leaving it to two parties. That is only my view, of course. That is all. I may be wrong of course, in my opinion, but it is my view of it.
 1231 Q You have asked among other things for a monthly inspection by deputies and District Inspectors? A What mystery is that? Would you read it?
 1232 (Mr. Lyggett read the T.)
 1233 Mr. Robertson] Q Are you aware that the tendency of legislation has been to require the reports to be on the Manager alone? A No. I do not know that I am.
 1234 Q Cannot you say that the whole tenor of the Act is to throw the responsibility on the Manager? A Well, I suppose if I understood it rightly the responsibility as such under this would still be on him to the last part, to the last that they were done.
 1235 Q Do not you think that under this proposal the responsibility would be divided? A The monthly examination would be made by the deputy, but the Manager would still have to see that that was carried out.
 1236 Q But you ask for the deputies to report along with the District Inspector. Do not you think that is a very curious thing and totally opposed to the whole tenor of the Coal Mines Regulations and legislation? A I do not see it.
 1237 Mr. Lyggett] I think Mr. Robertson misunderstands. It is a monthly examination by deputies, and a monthly examination by District Inspectors, but not at the same time.
 1238 Mr. Robertson] It does not say so.
 1239 Mr. Lyggett] I will read that now. It would mean that one fortnight no examination would be made by the deputy, and the following fortnight no examination would be made by the District Inspector. So that it would really be a fortnightly examination.
 1240 Mr. Rogers] It looks as if it were intended to be one inspection made once a month in the presence of both the deputy and the District Inspector.
 1241 Mr. Robertson] Q What sort of an examination do you mean? The usual inspection? A Yes, the usual examination.
 1242 Q Only with the hydrogen flame? A Yes.
 1243 Q Into the oil workings, and so forth? A Yes, and any part—a thorough examination—to go over the whole of the workings.

1243. Q. Do you know how this hydrogen gas is obtained? A. No.

1244. Q. You do not know that it is rather difficult and expensive to get? A. No.

1245. Q. You do not know how many tests can be made? A. No. I only know by hearing about these things.

1246. Q. And yet you commenced a thoroughly inspection, a complete inspection with the hydrogen flame?

A. Yes.

1247. Q. Do you know that taking an observation with the hydrogen flame is a very tedious process?

A. Well, I suppose it would be. It may take a certain amount of time.

1248. Q. And if it takes a day for the ordinary inspection with the ordinary lamp it would take about a week with the hydrogen lamp? A. Well, I do not know. A week would seem to me to be an extraordinary time to take to examine.

1249. Q. But you do not know? A. No. I am not in a position to say the exact time.

1250. Q. Then, as an example, if I took the District Inspector three days to inspect a mine that could be done in the ordinary way in one day, and the District Inspector should have to make an inspection every fortnight, necessarily that would involve the appointment of a large number of additional Inspectors?

A. Oh, if that were so. I do not know whether it is so or not. But if it took the time that you say it would take many more Inspectors.

1251. Q. Now, if it is suggested here that the District Inspector should examine once a month, and the deputy once a month.

1252. Q. Mr. Anderson? A. Well, once a month. You can clearly see that a large number of additional Inspectors would be required, even supposing it took the same time? A. Oh, I do not know that it would require many additional men.

1253. Q. I will put it to you in this way. I know of one colliery where a complete inspection would take at least a week. Now, could the Inspectors go round the whole district and visit all the mines under three months?

A. Well, the whole of the mines in the district?

1254. Q. Yes. Take the Inspectors in this district? A. Oh, yes, I think they could.

1255. Q. In addition to their own duties, clerical work, and attending at Court, and so on? A. Yes; I think they could do it under that. It seems a long time.

1256. Q. Now, as to the watering of the mine, you only ask for travelling roads and backslaps ways to be watered? A. That is all.

1257. Q. In that a railway engine, or a motor of some kind, or it is to prevent any danger from explosion extending? A. It would stop-graft these things you have mentioned. I think, more or less—every one of them.

1258. Q. But, to be of any use, do you not think the watering should be thorough? A. Well, as I said before, if there was water in the mine, a little of it, it would be all the better all over, but I could not see that it was practicable. I thought, if we had that main road and the travelling roads watered, that would be some assistance.

1259. Q. Supposing the main roads and travelling roads were watered on a mine where there would be 20 miles of them, that would be rather a big order, would it not? A. Yes, it would.

1260. Q. Especially if the temperature were very high? A. Of course, the more travelling roads there are, the more work there would be in doing it.

1261. Q. And the higher the temperature the more water would be required? A. Yes. I suppose the same that the more water it would require to lay it, and so forth.

1262. Q. And have you any idea of the effect of watering roadways in a mine with a high temperature? A. No.

1263. Q. Are you aware that it is expensive to the health of the workmen? A. No, I am not aware of that. I never studied that part of it. I never heard of it before.

1264. Q. Have you ever heard the name of Hall, an Inspector in the Old Country? A. No.

1265. Q. In connection with the experiments with coal dust? A. I do not remember the name. I have read lots of names mentioned. It is a common name too, but I do not remember it.

1266. Q. I thought every mining man knew who Mr. Hall was? A. I do not remember the name.

1267. Q. He is the Inspector of the Liverpool and North Wales District? A. That might account for my not hearing of him, because I never took any interest in that part of the country.

1268. Q. Are you aware that he has reported that the attempt to systematically water the mines in his district has failed? A. No. I never heard of it.

1269. Q. With respect to the instructions to miners as to the means of exit and so on, you would not suppose any penalty on a mine for refusing to follow the deputy? A. No.

1270. Q. Would you suppose any penalty on the owner if it was proved that a mine had not been shown? A. No. The question has never entered my head on either side, because I thought it was such a necessary thing, and I thought that both parties would be only too glad to agree to it. I never thought of a penalty. It seemed to me a few flat notices from the Manager would try to break, and the penalty has never entered my mind on either side.

1271. Q. In the case of a mine where there are a large number of long roadways; supposing that you commenced at one end of the pit to show the men different means of exit, and supposing there are told a dozen roads 2 miles long, it would take some time, would it not? A. It would. But surely there is no place with that many.

1272. Q. In there not,—there are some places with a good many more. A. The ways out and 2 miles each, it seems a big place.

1273. Q. But in a very extensive mine it would take a long time for a miner to be instructed as to all the means of exit? A. Yes. Still it would be just the same trouble to show a dozen men as to show thirty or forty.

1274. Q. As to self-closing doors, if a self-closing door was found open, or partially open, say by an Inspector, would not the Manager be liable to prosecution? A. I suppose he would, whether it was a self-closing door or not, it would be just the same in either case.

1275. Q. Although he provided a self-closing door, and through something—a stone, or anything you like—it was found open, he would be liable to prosecution? A. Yes, I suppose he would, just the same as if there were no self-closer on it.

1276. Q. But in the other case where there is no self-closing door, and the obligation was on the men to close the door, the Manager would not be responsible, would he? A. I would leave the responsibility just the same, but it would work more slowly.

Witness—J. Morgan, 7 January, 1903.

1277. Q. But if, through some cause over which the Manager had no control, only one workman working a piece of stock or a piece of work against the time, it was impracticable, do you not think it would be rather hard that the Manager should be responsible? A. I do not think so.

1278. Q. He having used all the means at his disposal, having complied with the Act? A. He does that under the present conditions, and that is a help to the management, I consider, and makes the case more sure to close.

1279. (The Commission then adjourned until 2 p.m.)

RESUMÉ.

(On resuming after lunch Mr. W. B. Frost stood to take shorthand notes of the evidence and proceedings.)
Mr. JAMES MAQUINN, previously sworn, was further examined as under:—

Examination by Mr. Robertson:—

1280. Q. You want to abolish lanterns, as I have been asked to do? A. Yes, I think it is better.

1281. Q. If a company has gone to considerable expenditure to get up a furnace, would it not be a hardship to call upon them to put a fan? A. Well, I suppose all this means expense, but I am looking at it from the point of view of what is best. I did not study engines.

1282. Q. In the case of a small colliery supplying the town, it would be rather a serious matter for proprietors to erect a fan? A. Yes, I am afraid for a very small colliery.

1283. Q. You know there are lots of little collieries? A. Yes, and would be a very small affair.

1284. Q. Say twenty ones? A. Twenty men would be a small number too. It would be much more serious if a large number of men were employed.

1285. Q. Would it not be sufficient to make the case, if an Inspector thought it necessary that a fan should be erected to give notice to the company, and if the company objected to have the matter referred to arbitration? A. I would not mind doing the same with fans as with the lamps, giving any Inspector full power. I think the power should be placed in the Inspector's hands, and I think the fan is preferable.

1286. Q. But I am afraid that the Inspector would have no alternative but to go for the fan as for the lamps, he would not accept the responsibility of not ordering them? A. If he thought it was best and unless he would probably order them.

Examined by Mr. Robinson:—

1287. Q. Do you know of any colliery which has recently introduced safety lamps, where any part of the case is worked by safety lamps, and the other parts by safety lights, and where the men themselves requested the management to use safety lamps throughout? A. Yes, at the South Cliffe Mine.

1288. Q. And the management comply with the request of the men? A. No.

1289. Q. Although they regarded the lamps as being necessary? A. The lamps were introduced into one part of the mine, and the men thought it would be better to use them all over the mine. They asked the Manager, but he did not do it. He kept the lamps on one side and he took them out altogether for a time.

1290. Q. Have they been out ever since? A. They have been put in again, but have been put over all the mine now, with the exception of one of the main drives, where they have the naked lights. The workmen and the strikers have the lamps.

1291. Q. With regard to safety lamps, do you consider that if an Inspector had had the power to order them he would have done so? A. I think that he would. I think that if he had had power to order the lamps they would have put them in sooner.

1292. Q. Under the present law, if an Inspector were to order them to be put in a mine, the Manager could refuse to put them in? A. Yes.

1293. Q. As to the monthly examination. Do you consider that monthly examinations with a hydrogen flame are necessary from a safety point of view? A. I think that such frequent examinations would tend to safety.

1294. Q. Do you consider that the method of testing for gas now is sufficient? A. I think that we ought to keep on to date. Any improvement that there are ought to be brought in.

1295. Q. With regard to the recommendation that waste workings should be examined by the hydrogène flame. Do you agree with that? A. Yes.

1296. Q. You think that it would diminish the danger of gas coming on a mine? A. I think it is desirable that waste workings should be examined as far as they can be.

1297. Q. Is that the main question of safety? A. I think the fans are an improvement.

1298. Q. You do not think there is anything absolutely certain, but the intention is to examine the danger in a practical way? A. Of the two systems I prefer ventilation by fans. I think it is the safest and the best.

1299. Q. As to the inspection on the 4th of August, which you speak of. Do you recollect any directions being given by any person as to the expression of opinion? A. The understanding was — (interrupted).

1300. Q. Was there any understanding? A. Yes, the understanding amongst ourselves was that we were to keep on our control, each one was to be in his opinion, but not to speak about it in court. It was intended to have a meeting later on to discuss it. We did not have a meeting, and I for one have held my tongue about what I have seen.

1301. Q. According to the understanding arrived at? A. Yes.

1302. Q. Did you take any notes? A. No, I took no notes at all.

1303. Q. Did anyone take notes? A. I think I saw Mr. May taking notes. I relied upon you yourself taking notes. I thought you would be there to take them, and that that would be sufficient.

Part of cross-examination by Mr. Bruce Smith:—

1304. Q. You told Mr. Robinson that you saw a case in which several of a mine was worked by safety lamps, and where the men requested that the other half should be worked in the same way. Was that where the decision of the Arbitration Court that a system of safety should be allowed to the men for working by safety lamps? A. Oh, yes, it was. (Inter-upted).

1305. Q. And at that time the men were asking for the extra fee for working where the lamps were used? A. Yes, they were asking for that.

Mr. EDWARD O'SULLIVAN was sworn and examined as under:—

Re-examination by Mr. Lysaght:—

- 1360 Q What is your name? A Edw'd O'Sullivan.
 1361 Q Where do you reside? A At St. Mary's.
 1362 Q During the two years 1900 I saw you working in the Kewble Gallery? A Yes.
 1363 Q For how long? A Five and a half years altogether.
 1364 Q How long were you getting used? A Five years.
 1365 Q Do you remember working with anyone in 1900? A Yes; with George Ramsey.
 1366 Q Whom were you working with Ramsey? A At the 4th Left in No. 1.
 1367 Q Can you fix the quarter of the year that you were at work? A November or December, I think, 1900.
 1368 Q Do you remember anything taking place when you were working with Ramsey? A I remember the glass being put, and there was a little gas there one day—when we went in, about 11 o'clock.
 1369 Q Will you tell us what happened concerning the gas? A We were cutting the bottom out of the coal; we cut about 15 inches. Ramsey was looking at the face and put his light up to it, and the gas took light.
 1370 Q How far did the gas burn? A About 5 yards; that is the nearest I can say to it.
 1371 Q Was it there? Q Did it flash out? A He had his lamp in his hand; and the gas burned.
 1372 Q Did it flash out? A It flashed out, but only lasted for a few seconds.
 1373 Q Mr. Lysaght? Q Was it a mixed light that was used? A Yes.
 1374 Q How long did it burn? A Five or six seconds.
 1375 Q Was anything done by you or Ramsey? A Ramsey reported it to Mr. Nelson.
 1376 Q Mr. Wade? Q Were you there? A Yes.
 1377 Q Mr. Lysaght? Q What did Mr. Nelson do? A Mr. Nelson put the lantern about up to the face of the mine.
 1378 Q Was anything else done then? A We were sent into a cut through about a week afterwards.
 1379 Q Now, at the time the gas lit, what was the condition of the building? A The building was 4 or 5 yards from the face, at the most.
 1380 Q Were you ever a wheler in Kewble? A Yes; I was a wheler for three years.
 1381 Q Did you observe anything? A I have seen men after firing a shot put up a light to the face; and I have seen it burn for a few seconds.
 1382 Q Can you fix the place where you were working? A It was on a place in No. 5.
 1383 Q Mr. O'Sullivan? Q When were you working? A I cannot say the date.
 1384 Q Was it before that? A Yes.
 1385 Q Mr. Wade? Q Up to the time that you started running were you working? A Yes.
 1386 Q What did you say just now? A I said that after we had fired I have seen them put a light up to the coal, and it has taken light and has burnt for a few seconds.
 1387 Q Mr. Frank Smith? Q Do you mean the new face? A Yes. After the shot had been fired.
 1388 Q Where was it? A In the shaft distant out in No. 5 drive.
 1389 Q Mr. Lysaght? Q Was it far long? A It would be four or five seconds, or perhaps six. You would not see it, that is all.
 1390 Q How often altogether have you seen that happen? A Only two or three times.
 1391 Q Did any of the men in your possession make a report of any such thing to any official? A Ramsey is the only man who ever made a report, by my knowledge.

Cross-examination by Mr. Wade:—

- 1392 Q What are you doing now? A I have been working at pulling down buildings, under Mr. Foley.
 1393 Q Are you any relation to the great O'Sullivan? A Yes, I am nephew.
 1394 Q When did you leave Vincent Kewble? A Six months ago.
 1395 Q Where were you last engaged or employed? A I think I was in Bishops.
 1396 Q Do you know how you were coming to the end of the time your service? A We were pulling it down with a post.
 1397 Q When you finished it? A No, not at all, we had done little shooting in that quarter at all. We used to put a shot in the left-hand corner, to break it up. We might fire one or two shots altogether.
 1398 Q You say you had been taking down some coal, and that Ramsey was looking along the face of it? A Just before it was had fallen down he was looking along the face of it to see when kind of coal had fallen. The gas flashed out, and there was a light.
 1399 Q You say it flashed out for about 5 yards? A Yes.
 1400 Q Might you not be mistaken as to that? A I do not think so.
 1401 Q Might it not be 3 feet? A No.
 1402 Q Then it would not be correct to say it was 5 feet only? A No.
 1403 Q Where was that? A In the 4th Left.
 1404 Q Whereabout? A In about the middle of the road. It was on a post in it.
 1405 Q Did you report anything else to Mr. Nelson except that? A Yes. We had been working at the place about a month, and had been examining all the time.
 1406 Q Did you complain to Mr. Lysaght, the on-site manager? A Yes, about a couple of times.
 1407 Q Who is supposed to be the man to attend to the lantern on the face? A I think it is the deputy.
 1408 Q Did not you know what you duty was? A To report to the deputy.
 1409 Q Did you report about the lantern? A I thought it was high enough.
 1410 Q Is that 5 yards from the face rather a long distance? A I do not know that.
 1411 Q You know that you ought to have seen if there was a small quantity of gas? A I cannot say that.
 1412 Q Do you know that the shot is to keep the face up to the face and to carry off any gas that may come off? A Yes.
 1413 Q About the men going up to the face, after firing a shot,—do they go up directly after the shot has cleared off? A Yes, shortly after the shot has been fired.
 1414 Q The first thing is that there put a light to the face? A Yes.
 1415 Q At that time there would be no entirely new face? A The broken coal would be there after the shot.

Witness—E. O'Halloran, 7 January, 1938

1364. Q. Did you notice where the light was lost,—was it over the bulk head? A. It would be hard to tell where the light would be after the coal was fired.

1365. Q. Who were the men? A. It was a long time ago, and I cannot remember them. I saw them tell me that was all.

1366. Q. What parts were they working on? A. No. 1 and No. 5.

1367. Q. What part of No. 1? A. The 113 Left.

1368. Q. Can you tell me what time at the day it was that the gas lit when you were with Ramsey? A. About 11 o'clock.

1369. Q. How long were you working in that place alongside with Ramsey? A. I think two months and a half. I think I left before the quarter was out.

1370. Q. That was the only time you saw the gas? A. Yes.

Cross-examined by Mr. Bruce Smith:—

1371. Q. How long after this display of gas did you report to Mr. Nelson, and also to Mr. Leitch? A. It was about a half hour that we reported to Leitch, that was before we saw the gas.

1372. Q. Did you ever report about the gas to anyone else besides Mr. Nelson? A. Only to Mr. Nelson, the Deputy.

Mr. MICHAEL QUINN was sworn and examined as under:—

Re-examination-in-chief by Mr. Lyngdale:—

1373. Q. What is your name? A. Michael Quinn.

1374. Q. What are you? A. A miner at Mount Kembla Colliery.

1375. Q. For how long? A. About fourteen years. I have not been all the time there, but it is about that time since I went there first.

1376. Q. Have you been getting on all that time? A. Yes.

1377. Q. Before you came to Kembla did you have experience in any other parts of the world? A. Yes, in England, and also in New Zealand.

1378. Q. What experience have you had? A. I was at Mansfield, in England, in the county of Derbyshire, where I was with the shift overman for a good while, about two years; he looks after the return air.

1379. Q. How long were you in New Zealand, and where? A. I was at Casselburg, and I was also in Victoria for twelve months. I was at Newlands for about two years, and at New Lambton, and also at Bellvue.

1380. Q. What has been your total experience as a miner? A. About twenty-five years.

1381. Q. Now, in any of the Collieries you have worked in, in the country, were those Collieries known to give off gas? A. Yes.

1382. Q. Have you had any experience with regard to gas in Collieries, by working in them? A. At Mansfield it was an important job I had. I was only a youth at the time, but the present I was with was looking after the airways. He is termed a shift overman. I went with him for company.

1383. Q. How many years' experience have you had working in Collieries where there was gas? A. Twelve months in New Zealand, all the time I have been at Kembla, and in the Old Country.

1384. Q. Were you working at Kembla at the time of the disaster? A. Yes, I was working in the Red Right.

1385. Q. Can you give the number of the head or the pillar? A. It was a heading.

1386. Q. Can you point out on the plan where it was—was it near the telephone cabin? A. It was near the north daylight heading.

1387. Q. Did you notice anything on the day of the disaster? A. No, not before the disaster.

1388. Q. Where did you first know of the disaster? A. I was at the working place, and my mate was just going to go home when a boy came up and told me that the pillar had broken off. I thought he was joking at the time. I thought they were waiting for slaps. I said, "You are only having a bit of fun." He said, "Look how white I am." I went over the back heading and met some men going out. We did not know what had happened at the time. Nobody could give you any information, or say what was the matter. Presently a man came along and said that the best was terrible about the main tunnel, and that he could not get through. I said that they must have struck a blow in the heading.

1389. Q. Did you afterwards go into the mine? A. Yes. I went to the store to try and get a safety lamp.

1390. Q. What was the condition of the lamps? A. I had a trouble job to fix one up.

1391. Q. The woman? Q. I suppose you came out at the daylight heading, and went round? A. Yes, I went round outside.

1392. Q. Mr. Lyngdale? Q. What about the water for the lamps? A. I asked a boy, and he said there were some a few months ago.

1393. Q. Were the lamps fit for use? A. No, they were not.

1394. Q. If there had been lamps ready for use would it have made any difference as to the saving of life? A. I think so.

1395. Q. What difference? A. In my opinion we were stopped from going in to save life; and it was very late when the main body of men got in with stretchers. If we could have got in at first I think that many men would have been saved.

1396. Q. Did you afterwards make any impression of the mine? A. No.

1397. Q. From anything you observed before and during the whole of your working there, or from any thing you know of, have you formed any conclusion as to the cause of the disaster? A. I told some of the party that I went in with that I thought it came from No. 1. That was the party with whom MacCabe worked.

1398. Q. What is your opinion as to the disaster? A. In my opinion it happened either in the main tunnel or from them to Anderson's place.

1399. Q. What happened? A. An explosion of gas which caught light in one of those places.

1400. Q. Mr. Lyngdale? Q. Do you mean No. 1, or the main tunnel? A. No. 1.

1401. Q. Mr. Lyngdale? Q. What do you mean by place? A. In places from the main tunnel and on to Anderson's place.

1408. Q. Did you think there was one explosion, or more? A. I think that the gas was near the roof, and that it caught light by contact with a naked light, and that it kept flourishing about in the place and that came back to the main heading.

1409. Q. Can you support that theory with any other facts? A. One of the men who had been working night-work at Mt. Kembla — [Interposed.]

1410. Mr. Wade: I object to this evidence.

1411. Mr. Wade: I think it is going too far.

1412. Mr. Spence: Leaving the explosion for a moment, have you on any occasion in Kembla known of the presence of gas? A. Yes.

1413. Mr. James Rankin: He gave a good deal of evidence on this matter at the inquest.

1414. Mr. Spence: That is already before us at present.

1415. Mr. Spence: Have you read the evidence of Mr. Atkinson as to his theory, and as to the force observed after the disaster? A. Yes, I saw some of his opinions.

1416. Q. As a practical miner can you give any opinion from your own observations in the past? A. It is hard to form a hard and fast line as to which direction gas will come and go. I have seen it before today come out twice from the face and go back a third time to the face. I have seen it strike the face and come out again. When occurred at one time with gas might not come at another time.

1417. Q. Have you observed anything in Mount Kembla? A. I was working in the 1st Left, there was gas in the back heading. I was working at front. A man was driving the heading at the time and the gas came up to where he was working. It went to the face, came back, struck a prop and went out. That man got his beard singed at the time.

1418. Q. Was that in 1897? A. It was in 1898.

1419. Q. When was that? A. Eleven years ago.

1420. Q. Was that subsequent to the erection of the furnace? A. The furnace was up then, it was subsequent to the erection of the furnace.

1421. Q. I think you have already given evidence of gas having lit and having been reported to Mr. Rogers, and you told us how many times you have made reports to chiefs of the presence of gas in the mine? A. I made three only to deputies.

1422. Q. Deputies are officials? A. Yes.

1423. Q. How many times have you reported to deputies? A. Twice.

1424. Q. Who were the deputies? A. I gave evidence of that before.

1425. Q. Is there anything else you desire to say about the presence of gas in the Kembla mine? A. No.

1426. Q. You occupy some office in the Mount Kembla Colliery? A. Yes, I am President.

1427. Q. Now, what do you say as to those recommendations? I think Managers, deputies, and shift-foremen should hold certificates of competency? A. I think it is proper that they should hold certificates. They have the lives of the miners in their hands, and it is nothing but right that they should know their duty. They ought to know all about gas.

1428. Q. What do you mean? A. They should know what gases would cause an explosion, and all about the use in the place, and they should have a practical and a theoretical knowledge as well.

1429. Q. Can you say whether there are any persons at Kembla who, in your opinion, are not competent to be officials? A. I think it is all very well if the witness was an expert, and the issue is not before the Commission as to the competency of certain men. We have no concern with that now, and we are not concerned to know whether there are men in the mine who are competent or incompetent. It means that if the witness can give evidence as to whether there are men who are competent or incompetent, we should have to call a dozen witnesses to prove all about the officials' competence.

1430. Mr. Spence: When the deputies and shift-foremen do not undergo an examination, men may be employed who are incompetent. Danger might be avoided if these men had a theoretical knowledge.

1431. Mr. Spence: I think it is hardly right to go into the particular ability of particular men as a mine.

1432. Q. Can you say whether in the witness' experience generally he has observed anything as to the general competence of the men who have this particular work to do?

1433. Mr. Spence: Q. Can you give any evidence of particular facts to show that these men are incompetent — any things that have been done at Mount Kembla? A. I have been asked by special request by some of the members to bring this case before the Commission. We do not want to form any knowledge by some of the members to bring this case before the Commission. We should leave the decision with them.

1434. Mr. Spence: Then you freely believe in the expression of opinion involved in this particular recommendation? A. That is so.

1435. Mr. Spence: Q. Can you give any evidence relating to things which happened before the disaster showing that persons who had not passed any examinations were incompetent? A. I am of opinion, so far as I am concerned, that no man should hold such positions as these.

1436. Mr. Wade: This is a very vague question.

1437. Mr. Spence: It is vague, but I think it is admissible.

1438. Mr. Wade: If an inquiry like this is opened up, it will mean that we shall have to bring witnesses here to answer these questions.

1439. Mr. Spence: I do not think it is right to give evidence as to the competency of any particular man. It is general evidence that is wanted.

1440. Mr. Spence: I will now ask that the next recommendation be considered. It is, that Inspectors ought to be vested with absolute powers to order the use of safety lamps. Q. Is that a proper and wise provision? A. That recommendation ought to be passed. We should leave the decision with them.

1441. Q. Do you think that ventilation by furnace should be prohibited, and fans substituted? A. I think that is most important — the most important thing of the lot.

1442. Q. Why? A. Until we have further ventilation we shall always be liable to accidents. The only hope to save our lives is by good ventilation.

1443. Q. Does any danger arise from the furnace? A. If an explosion strikes a furnace, I suppose it would be all over with all of us.

1444. Q. Why? A. If the explosion had occurred at the shaft instead of No. 1, it is likely that there would have been many more to die to trouble you.

- 1429 Q Why would that have been so? A It would have stopped the ventilation.
- 1430 Q You mean in other parts of the mine? A Yes.
- 1431 Q What do you say about waste workings being absolutely sealed off and being surrounded by return airways? A I think that is a reasonable requirement as far as my opinion is concerned.
- 1432 Q It is recommended that all places, except prospecting drives, should have air through not more than 25 yards apart? A I think that is desirable.
- 1433 Q What about safety details? A Because the miners very often get knocked down by the whistles, who are near machines, and they may come gas to asphyxiate in various places.
- 1434 Q Would there be any additional protection afforded by cut-throughs? A You would not want so much timber. The miners can never be killed close to the roof. There is always room for the air to come.
- 1435 Q Is the majority of the tallies which you have worked in, what has been the average clearance of the cut-throughs from each other? A Well, they differ. Thirty-five yards in the last in England. I think they differ very much in this country.
- 1436 Q What about Newcastle? A At Newcastle they were about 30 yards apart.
- 1437 Q What is the average distance in Kumbula? A They have a lot of differences. In some places they were 30 or 40 yards, and in some places 20 yards, and then they were hardly ever across through to the working places. There was one pillar left untouched.
- 1438 Q By having cut-throughs every 30 yards, would there be any greater danger of the roof falling? A I do not think there would.
- 1439 Q That is your opinion as a practical man? A Yes.
- 1440 Q What about inspection with a locked safety lamp in all mines? A The inspection should be with a locked safety lamp always—that is the necessary inspection.
- 1441 Q What about the inspection each month with a hydrogen flame? A I support that recommendation. The matter ought to be decided by scientific men who understood the nature of these gases. They ought to know what percentage of gas there is in the mine. We have no knowledge of it by simply working in the mine. Until there is some hard and fast rule laid down in the matter and carried out, we shall always have danger.
- 1442 Q It is recommended that a minimum of 200 cubic feet of air should be provided for every horse, instead of 100 feet as at present. A Well, the more air the better.
- 1443 Q Well, in your opinion, is 100 feet of air sufficient for a horse? A Well, as 100 feet is only sufficient for a man, it would not be sufficient for a horse.
- 1444 Q What has been the general rule as to the condition of air in Mount Kumbula? A It differs very much. At times you get first-class air in parts, and at times unbearable air in other parts.
- 1445 Q Within the last two years have you had any unbearable air? A Yes, in one particular place. I stated that in my evidence before. It was the 4th light.
- 1446 Q In any other place? A Not in that extent. I had to draw the deputy's attention to it. It was so hot.
- 1447 Q Another recommendation is that all doors shall be closed so as to close and remain closed of their own motion? A Yes, I think that is useful in a mine.
- 1448 Q Do you think it would take away any obligation on the part of any person to shut a door? Or is this recommendation to be regarded as being an action precaution? A No, any person who opens a door should shut it, or if they desire it open they should shut it.
- 1449 Q Do you think double doors on doors, between main intake and return, and main headings, are necessary? A I think so, because if a ship is coming through any intake and return, and main headings, are necessary.
- 1450 Q When the ship comes through, does the air escape? A Yes.
- 1451 Q How long does a ship occupy to get through? A Well, an accident might occur and it might take five minutes or more. A track might get off the road.
- 1452 Q What about weekly measurements of the air in each section? A I think the present method of measurement is a flaw. It is measured at the tunnel mouth, and the air can go where it likes afterwards. That is of no benefit to us. It should be measured at different places. You can measure the air at the tunnel mouth after that.
- 1453 Q Is the measurement of the air at the tunnel mouth any indication as to the amount of air circulating in other parts of the mine? A No, not under present conditions.
- 1454 Q Would the recommendations for the weekly measurements of air entail any special expense? A It would be a force to maintain the air in Mount Kumbula unless they had proper stoppings put up. They will be able to get stoppings put up to get the air carried round to the faces.
- 1455 Q Whereabouts? A In the ret through.
- 1456 Q What about the cut-throughs now? A The stoppings now are return airways, they must stay that.
- 1457 Q Is that a dangerous condition? A Yes.
- 1458 Q You mean places that should be stoppings? A Yes, they were intended for stoppings, but they leak.
- 1459 Q Mr. Bruce Smith? Q They leak, and the air gets through on the top? A Yes.
- 1460 Q Were they leaked off? A They were filled up with slack and stone, and after a time they fell down at the top.
- 1461 Q How many of those are there? A There was one that I was working by the side of last quarter, it was supposed to be a stopping, but it turned out to be a return airway.
- 1462 Q How many more are there? A That is the only one that I think notice of, and I took particular notice of that. I give you an opinion here that this ought to be examined for our sake alone. It is not a great expense, I think, and it is necessary for the protection of the mines and of property.
- 1463 Q What about the rules supply of safety lamps and registers equal to one third of the number of persons employed below ground, to be kept in good order and ready for use? A I think that is necessary.
- 1474 Q And then it is recommended that travelling and haulage roads and other places necessary should be properly watered? A If the Inspector says that there is danger of dust coming on employees, then it is necessary. If not, it is not.
- 1475 Q In whose direction should the watering be? A The Inspector should be the man to have the authority.

14356 Q It is recommended that Managers should be compelled to give more time and attention to the management of a mine? A I think that is a most important question.

14377 Q When has been your experience at Mount Keweenaw? A I think—[See Mr. Rogers given more and attention.] A. When he was under manager he was careful in going round, but after he was made full Manager he did not go round so often.

14378 Q How often does he attend to the internal work? A I can give you no information at all.

14379 Q Did he attend sufficiently to know what was going on in the colliery?

14380 Q Mr. Wade objected to this question—and it was not pressed.

14381 Q Now, with regard to the instruments which it is suggested should be placed at the bottom of the shaft to record the variations of heat and so forward? A That is what they have in England.

14382 Q What is the object? A I suppose it is to tell the changes of heat in a mine.

14383 Q Would that be necessary if the furnace were shut off? A I think so.

14384 Q Now, with regard to the recommendation that the use of the machine should be enlarged. They are now about 4 feet deep by 6 feet high? A That is not so important to me as the air.

14385 Q Would it be an extra precaution for safety? A Not a great bit.

14386 Q It is proposed to ask for the cancellation of the certificate of William Rogers, the Manager?

14387 Mr. Wade | I beg to call your Honor's attention to this point.

14388 [Mr. Moore said that he held that the Commission had nothing to do with the cancellation of certificates, and it would only be for the Commission to find out what Mr. Rogers ought or ought not to be.

14389 [Mr. Moore said that he held that the Commission should find with the question of the suspension of the certificate, and he thought that the point ought to be made from the fact of suspension.]

14390 Mr. Rogers | I would like to be quite clear. The rule that I am not to bring forward any evidence to show that Mr. Rogers was an incompetent Manager.

14391 Mr. Moore | You can bring any evidence to show that his incompetency may have led up to the accident.

14392 Mr. Rogers | Then I must confine the evidence to the disaster.

14393 Mr. Moore | That is certainly the proper thing to do.

14394 Mr. Rogers | Q Are there any facts in your mind which in your opinion contributed to the disaster to which blame was attributable to Mr. Rogers?

14395 Mr. Wade | I object to that.

14396 Mr. Moore | The question is rather complicated.

14397 Mr. Rogers | Q Do you know of any matter, or anything which Mr. Rogers could have avoided, which probably contributed to the accident—[interrupted].

14398 Mr. Wade | The witness has not given the cause of the accident beyond saying that there was an explosion of gas because of instant with a naked light.

14399 Mr. Moore | The witness can form a theory the same as anyone else. He may be asked, "Do you in any way connect Mr. Rogers with the happening of what you believe to be the cause of the accident?"

The witness is supposed to be an expert.

14400 Mr. Wade | I say that he is not an expert.

14401 Mr. Moore | If he can say how Mr. Rogers contributed to the accident, he may say what he thinks.

14402 Mr. Brown Smith | I think it is for the Court to decide whether a man who comes here as an expert.

14403 Mr. Moore | In a sense, a man coming from a mine where he has been working all his life must be treated as an expert.

14404 Mr. Brown Smith | Would he be an expert in judging of the qualifications of a Manager?

14405 Mr. Moore | It is only a question of degree. The further you stretch the matter the weaker it becomes to some extent.

14406 Mr. Rogers | If Mr. Rogers entered the premises of gas on this occasion, it would be his duty not to allow men to work with naked lights at all.

14407 Mr. Moore | If that is your father's meaning you can put it more plainly in the witness. I will allow the question to be put in a general way.

14408 Mr. Rogers | Q Were there any facts known to Mr. Rogers which had he taken proper steps, would have affected the disaster? A If my opinion is going to do no good—if my opinion is worth nothing—[interrupted].

14409 Mr. Moore | I did not say that your opinion was not worth anything.

14410 [Witness:] And if my answer would endanger my position, and very probably my bread and butter, and if it is no benefit at all, I think I had better keep it to myself.

14411 Mr. Wade | If that is the ground I hope the witness will answer.

14412 Mr. Rogers | I take it that your Honor rules that this is not the place to dispute into the credibility of a man based on the question of general competency.

14413 Mr. Moore | Only so far as it affects the accident itself.

14414 Mr. Rogers | Then I will go on to deal with the suggestion that instructions should be given to employees emphatically on the points of escape. Q Will you answer that question? A I think it is a reasonable request. It is not expensive, and if an accident happened the men would know the route how to get out.

14415 Q How many rules are there from the Keweenaw Mine? A Four that I know of.

14416 Q How long have you known of them? A The same ones.

14417 Q When would you propose to have the instruction given to the employees, and by whom? A By the deputy, when they are leaving work, so that it would not be any loss to the company, and it would be a benefit to the men.

14418 Q I see there is a recommendation forbidding any blackbelt to be kept? A That is very good, but how are you going to get at it?

14419 Q Can you give any instance where persons have been prevented from getting employment, or where an attempt has been made to prevent them? A Yes, but it was not successful.

14420 Q It was tried? A Yes.

14421 Q With whom? A With me.

14422 Q When? A During the strike at Mount Keweenaw I went to South Keweenaw, and I was informed that a strike had been made by the men from the management of Mount Keweenaw, but they did not take any action of it.

1201 Q What were the contents of the note? A That I had taken an active part in trying to get the men out of the mine.

1202 Q What was the request? A He did not tell me the request.

1203 Q Do you know any other where efforts have been made to stop persons getting employment, or where persons have been afterwards dismissed?

1204 A Yes, Wade. Prohibit the person, and then we can get into the matter. We cannot deal with bearing evidence.

1205 A Yes, Wade. Q Do you know Henson? A Yes.

1206 Q Were you present when he was discharged? Do you know that Ramsey was present at the request? A Yes, and I asked a man who knew a bit about the case, and he told me something.

1207 A Yes, Wade. I do not know the man here.

1208 A Yes, Wade. The particular man is afraid to give evidence, for fear of being dismissed.

1209 A Yes, Wade. It is not necessary to go into particular cases.

1210 A Yes, Wade. I think you will appreciate the difficulty of bringing evidence of this kind before the Commission. The men are afraid to report gas to the mine.

1211 A Yes, Wade. Call the men themselves on this point.

1212 A Yes, Wade. If the employees could feel a sense of security, a good deal of evidence would be available to the Commission.

1213 A Yes, Wade. There are reasons and they will be explained.

1214 A Yes, Wade. The law cannot be altered at once for the protection of these men, but a recommendation may be made to protect men in the future.

1215 A Yes, Wade. Have they not got the protection laid down by the Arbitration Court?—The last to come the first to go?

1216 A Yes, Wade. If dismissed the Arbitration Court would reinstate them.

1217 A Yes, Wade. It may be that they are discharged without giving any reason.

1218 A Yes, Wade. It seems to me that the further you can go in this. You may ask a witness whether he knows of his own knowledge of the existence of men whose history makes it clear to his mind that they have some valuable information to give, and yet refuse to give it apparently from fear of consequences. I think you can put that generally. Then it is a question for the other side to cross-examine on that or leave the matter alone.

1219 A Yes, Wade. Q Do you know of any persons who, by reason of their past employment in the mine, and many other reasons, you believe could give material evidence before the Commission, but yet are afraid to do so, because of the fear of consequences? A I do not know of what value their evidence may be.

1220 Q Do you think it would assist the Commission? A I cannot form any opinion on that.

1221 Q Have you heard that they could give evidence? A Only what I have told you.

1222 A Yes, Wade. You told me, but you have not told the Court.

1223 A Yes, Wade. Q Do you know that men are holding back from giving evidence, because of the fear of consequences—dismissal or something analogous to it? A I will give you the words of the man — [interrupted].

1224 Q I only wanted you to say whether you do or do not? A I know one man who would not give a shoddy answer about his evidence, because, he told me, it might injure his brother. I do not know what his evidence was.

1225 A Yes, Wade. Q Was that statement made recently? A Yes, about a week ago.

1226 A Yes, Wade. A man may be timid, or have an idea in his mind not founded upon a solid foundation.

1227 A Yes, Wade. Q There is a recommendation that lamps should not be switched for smoking? A Some of the miners are very alarmed at Mount Kennedy about this. I am myself.

1228 Q Is it the practice at Mount Kennedy now to the strike in this manner — [interrupted].

1229 A Yes, Wade. It is permitted by the Act.

1230 A Yes, Wade. Q It is permitted under the Act, but we say it is not satisfactory. A No; I think it is a very dangerous practice.

Cross-examination by Mr. Wade:—

1231 Q Why do you think it is dangerous? Is it on account of the gas? A Yes.

1232 Q Do you fear that the gas may come in contact with the naked light? A Yes, and cause an explosion.

1233 Q You can never tell when an explosion may take place? A No.

1234 Q Is there always a risk in putting a light to any gas? A Yes, when that part of the mine is dangerous.

1235 Q Do you ever think it is dangerous because there is a chance of getting into contact with a naked light? A Yes. But I want to make a statement.

1236 Q I want your answer, yes or no?

1237 A Yes, Wade. I assume that the witness desires to give an explanation.

1238 A Yes, Wade. Mr. Wade is trying to get around a different matter altogether, about evidence I gave before the Coalminers' Court about lighting gas.

1239 A Yes, Wade. Q Do you consider it dangerous to put a naked light where you may expect to find gas? A Under present conditions it would be.

1240 Q What are the present conditions? A The mine being dangerous.

1241 Q Is it more dangerous now than it was at another age? A No.

1242 Q Is it more dangerous now than it was before the disaster? A It is as dangerous now as it was before the disaster.

1243 Q Is there any danger now in putting a naked light to gas? A It depends on the time and the place.

1244 Q Is there more danger now? A It depends on the conditions.

1245 Q Is it safe now to put a naked light where you may expect gas? A If you expect gas now you are not allowed to put a light to the coal.

1246 Q Do you consider it dangerous to put a naked light where you expect to find gas? A It all depends on the quantity of air that there is.

1247 Q How can you tell that? A It is for the men who open the lamp to tell.

- 1184 Q If there is too little air at the time it is too late afterwards, and the damage is done? A Yes.
- 1185 Q You cannot tell the quantity of gas escaped, with the air in a particular place? A I do not need to.
- 1186 Q Is there not always danger in putting a naked light near where you think there is gas? A Not always.
- 1187 Q Then why do you want this provision? A The anhydrous may have been ignited in this part, and the man has not much knowledge as to the quantity of gas there. If the man thinks it is not safe to light the flat with the open lamp, and if it is not a loss to the company, why not stop the payment?
- 1188 Q When can you fix a shut and it will not be dangerous? A When you have a perfect knowledge of the air and the gas.
- 1189 Q That is what no man can get? A There may be some three men who can tell.
- 1190 Q Can an ordinary man tell? A No, he cannot tell.
- 1191 Q Do you know of this danger in England? A Yes, but we never used naked lights there.
- 1192 Q And you were told by Mr. Rogers never to light gas in your place? A I know you were coming in that. It is all nonsense.
- 1193 Q Were you told not to light gas in your place? A Not what he was there.
- 1194 Q Do you tell the Court he said "I am afraid not light gas in my presence, but do it when I am away"? A Yes, I always thought that he meant that.
- 1195 Q You could not do this in his presence? but you could in his absence? A There are his own words.
- 1196 Q Did he say, "Do not do it again"? A Not in our presence.
- 1197 Q You know it was dangerous? A Not under the conditions in that heading.
- 1198 Q What conditions? A There were three or four naked lights there.
- 1199 Q Three or four candles to one? A It is a new rule to light the gas there and burn it away.
- 1200 Q I want you to answer my questions. A I was going to answer them in a different manner. I have already given that evidence.
- 1201 Q Mr. Wills can examine you further upon it.
- 1202 Mr. Wills—Q Do you think there was any danger in lighting that gas? A Not at the time.
- 1203 Q Do you think so now? A Yes.
- 1204 Q Why do you think it is dangerous now? A I think it is dangerous after the explosion.
- 1205 Q After all your experience in England and New Zealand, you did not think it was dangerous at the time? A No.
- 1206 Q What do you think was the reason of Mr. Rogers saying "Do not light the gas before me"? A He did not want to know there was gas there.
- 1207 Q That is your view of what Mr. Rogers said? A Yes.
- 1208 Q Now, how often have you left Robert Kennedy? A I left it on three different occasions. I believe I left it on four occasions.
- 1209 Q Have you worked anywhere else since you have went to Mount Kennedy? A Yes, at South Kennedy for a few months.
- 1210 Q You have been a witness against the Company in several actions in Sydney? A Yes.
- 1211 Q On two different occasions? A Yes.
- 1212 Q Was the first in action about fourteen months ago? A About that length of time ago.
- 1213 Q Did you give evidence against the Company suggesting neglect on their part in connection with a particular mine? A I gave up on a witness.
- 1214 Q Did that suggest neglect on the part of the Company? And you said that a candle which had not fallen on and was dangerous, where a man named Brownie was working? A I did not say it had not fallen.
- 1215 Q Did you give evidence? A Wait for a moment.
- 1216 Q Mr. Wills? I suppose you are examining the witness Queen to show that, although he has given evidence objectionable to the Company, the Company has not attempted to show it has. I think a reason for you not mentioning the evidence is that there is no evidence to the contrary.
- 1217 Mr. Wills—Q The witness has said that there is someone else who, he believes, is afraid to give evidence, and I want to show what the relations are between the Managers and the men.
- 1218 Q Mr. Wills? I think it is hardly necessary to go into this matter more fully.
- 1219 Q Witness? I want to make myself clear, and I do not wish to be made to say things that I have never said before. I do not wish to come here to ignore the Managers or actions belonging to them. I would not come here to prepare myself for all the property in the mine.
- 1220 Mr. Wills—Q Let me go back to the fact of the fire. Is it not a fact that, after you had the lamps, you could not go into the mine because you had not sufficient switches? A No, it is not a fact.
- 1221 Q Is it not a fact that all the men had to be turned out on switches? A No, it is not a fact.
- 1222 Q You could not get the men here on a switch? A No, it is not a fact.
- 1223 Q Did all of these men who were working with other lamps have to be brought out of the mine? And any of them walk out that you know of? A No.
- 1224 Q And was not another, were men turned out on a switch? A Yes.
- 1225 Q Was not the difficulty in getting them out that there were not sufficient switches to bring them out? A That was partly so, but we could not get into the mine to the men.
- 1226 Q Did not those who were working have to walk to get switches? A They were blocked at the tunnel mouth by either the Managers or the police.
- 1227 Q Were not only "Dick, Tom, and Harry" blocked, and only authorized persons allowed to enter? A There was no authorized person there.
- 1228 Q When you had the naked lamps, did you not bring in a switch and the switches were made? A They had almost had a chance there.
- 1229 Q Or did they not get into the mine with them? A They could not get in with the switches.
- 1230 Q You say that when they had only lamps they could not get the switches? A And they were not permitted to go in with a naked light and there were not safety lamps there. No one was in with two or three hours after the explosion.
- 1231 Q Do you say that would have been there hours after the explosion there was no one in the mine with a safety lamp? A With I went in one of the last.

Witness—M. Quinn, December, 1903.

- 2015 Q Do you know that Government inspectors are made of Mount Kemble frequently? A They may have been before that. The last man I saw there for twelve months or over was on the day of the explosion. They did not come to me.
- 2017 Q No, I suppose you might show them up with you. Now, would you keep a man there to present who lights blowers of gas? A No, I would not allow a naked light there now. We will have to get men up there before we do that.
- 2018 Q When you found the air intolerable, was it because the breeze was short? A There was no breeze at all.
- 2019 Q When you complained and asked for breeze, did you get it? A In two places I got it, but in two places I did not get it.
- 2020 Q What happened? A We had finished the place.
- 2021 Q Was it a mistake to put breeze there? A Yes.
- 2022 Q Do you say that the system of measurement now adopted in the mine is a failure? A Yes, under the conditions.
- 2023 Q Do you say that the air is only measured at the tunnel mouth? A That is all I have done them do.
- 2024 Q Are you prepared to say that that is all they do? A All the time that I have been there it has only been done at the tunnel mouth.
- 2025 Q Do you not know they measure at other places? A I do not know.
- 2026 Q Did you say the ventilation was bad during the twelve months before the disaster? A In particular parts.
- 2027 Q In how many parts, do you think? A In No. 4 Right (meaning the 4th Right) the air was bad.
- 2028 Q Was that from black-champ? A Yes.
- 2029 Q That is one reason you speak of? A Yes.
- 2030 Q How often in No. 4 Right (meaning the 4th Right) was the air bad? A During the last quarter I was in there. During all the time I was there.
- 2031 Q How often? Q What quarter was that? A Before the disaster. There is four weeks before the disaster.
- 2032 Q Where you working in the pillars up in three weeks of the disaster? A Yes.
- 2033 Q You and a man named Maw? A Yes.
- 2034 Q Was that the last piece of coal taken out? A Yes, I drew the last timber out of No. 4 Right (meaning the 4th Right) No. 1 Section.
- 2035 Q Is Maw alive? A Yes, he is at Mount Kemble.
- 2036 Q Who else was with you? A There were two other men, Fling and Holbrough. They are not at Mount Kemble now. I think one of them is working on the coast, but I do not know where.
- 2037 Q Do you know that the miners have the right, under the Coal Mines Act, of obtaining a mine of to whether it is safe? A I do not know.
- 2038 Q By the Check Inspectors—your own men? A That is surely a farce. It is no good to us.
- 2039 Q Who is a Check Inspector, is he a miner? A We have none.
- 2040 Q When you did have one was he a miner? A Yes.
- 2041 Q Do not you know that the Act gives the miners power to appoint one of their number as Check Inspector? A Yes, but what good is it?
- 2042 Q You know that they have the right to go and examine a mine? A Yes, it is true that right was there every week.
- 2043 Q They have the opportunity to point out any defects? A If they have they do not carry it out.
- 2044 Q Do you complain of the Mine Manager because of that? A I do not blame him for the acts of others. Who do you say?
- 2045 Q Do you blame him for their neglect? A No.
- 2046 Q If the Check Inspectors are not capable you can replace them? A I do not know whether they are capable men or not.
- 2047 Q Do you see reports? A I never see the reports. I have no idea what becomes of them.
- 2048 Q Does not the Lodge get them? A Not that I know of.
- 2049 Q Can you show me any single communication in the Check Inspector as to you at the Colliery? A I do not know about the report. Before the explosion I was at work at Fowells Flat, and that was the first time I had to draw the attention of the Check Inspector to anything. When Mr Nelson was deputy he was appointed under manager; and the road through Fowells Flat was No. 2 travelling road. That road was condemned by the Check Inspector; and the roof looked so rotten that I went up No. 1 road. Mr Nelson waited until I came back, and said, "You are breaking the rules by going that road." I said that I had heard that No. 2 road was condemned. He said, "This condemned it?" I said, "The Check Inspector recommended that it be condemned." He said, "They ordered some timber." I said, "At the first meeting I go to I will do my duty and bring this up." I examined the timber as I went past, and it was really in a dreadful state. That is all I know about it.
- 2050 Q Is your objection to a furnace that if an explosion strikes it it will destroy the ventilation? A Yes. I have other objections as well.
- 2051 Q Is it not a fact that in every explosion the ventilation becomes damaged? A Yes.
- 2052 Q And afterwards travels all over the mine? A Yes.
- 2053 Q Would not the same risk be attached to a fan as well as to a furnace? A A fan could be more easily swept.
- 2054 Q Would not they have to replace the furnace? A I suppose so.
- 2055 Q You have also to replace the breeze after an explosion? A Yes.

Cross-examined by Mr. Bruce Smith—

- 2056 Q Can you tell me who appointed Check Inspectors in the past? A I believe they were appointed at the Miners' Lodge, but I have never been there at the time.
- 2057 Q Are they represented by the Lodge of which you are President? A Yes.
- 2058 Q Is it the Lodge that takes communications? A Yes.
- 2059 Q When the Lodge appoints the Check Inspectors, how often do they go over the mine to check the ventilation? A I do not know, I did not take any interest in the matter.

1000 Q Did not you form some opinion as to what the object of the Clerk Inspectors was? A I was not a permanent member of the Lodge, that.

1001 Q Do you know the way the Clerk Inspectors are appointed? A Yes.

1002 Q And in whose interests are they appointed? A In the masons' interests, to ensure the work.

1003 Q And to check for themselves the statements as to the work current? A Yes.

1004 Q Now, you are recommending that the examination should be made every week? A By practical men, not by masons. We want the mason's men free from the management of the mason altogether.

1005 Q Is it not better to have men to look at the matter from the point of view of the mason? A No, it is only another party's position if they make a report that is not satisfactory to the Manager.

1006 Q When it is a case, because the masons are afraid? A Because the masons are afraid to report as to the true condition of the mine.

1007 Q Have you seen the books of the Clerk Inspectors? A No.

1008 Q Do you know of a single case in which the Clerk Inspectors state that they are afraid to report to the Lodge when they find the ventilation is insufficient, because they are afraid to report it to the Clerk Inspectors' book? A I was never at a Lodge at which the matter was reported.

1009 Q Do you not know that there is a provision in the Act that no person shall be made or held guilty by a Clerk Inspector, unless a penalty—I refer to Rule 41, section 45? A I do not know that. I was never at any mason's meeting at which any report to the Clerk Inspectors was given.

1010 Q Then you never took any interest in it? A I look upon it as a bore.

1011 Q Why? A Very often they are not not quickened for the position. There may be a road that is reported on that will cost a lot of money to put in order, and that may, perhaps, make them disagreeable to the Manager.

1012 Q Is not the Lodge capable of determining what men are capable of checking the ventilation of a place? A Masons are simply working men.

1013 Q Do they get anything for the work? A They get paid.

1014 Q Yes, do you know whether they are paid or not? A I do not know.

1015 Q Do you say that the members of a Lodge are unable to choose the men to check the ventilation? A Yes, because the men are not amongst us. We are not able to examine and report on gases and so on.

1016 Q As a practical man of twenty-five years' experience, you say that in your opinion you are not sufficiently fit to see about the ventilation of a mine? A Yes, I may pick one man and you may pick another.

1017 Q There was a bullet? A Yes, but we differ in opinion. The salary is too small, and there is a lot of liability attached to it—a lot of liability attached to the position.

1018 Q That is why the masons take so little interest in it, because they are not paid to examine a mine? A No, they think it should be in the hands of Government. It should be free from getting the masons into trouble with the management.

1019 Q Now you told Mr. Lyggett that you had formed some opinion as to the cause of the accident. Did you form that opinion before you went to the end of No. 1 Right, —you have not been up there? A No; not more than inspection.

1020 Q What did you form your opinion upon? A That there was gas lying in three places; they being so far back from the surface.

1021 Q In what places? A In the main tunnel No. 1 (between No. 1 Right Mine Level).

1022 Q Tell the Commission how the explosion came about? A When we light gas we are taking such words and remarks.

1023 Q Was that what you meant by "fendering about"? A Yes.

1024 Q You mean that some gas got lighted? A In main tunnel No. 1 (No. 1 Right Mine Level) or in Arthur's place.

1025 Q You formed that opinion without seeing the place? A Yes.

1026 Q Do you think the opinion is of any value? A Yes may not think so.

1027 Q Is that all you have to say about the explosion? A Yes.

1028 Q Is that all you know about it? A Yes.

1029 Q I suppose you have nothing about working mines, excepting what information you have picked up yourself, you never read anything on the subject? A No. We have the opinion of waiting to more scientific men than we are. We ask the Commission to suggest certain laws which would be best for our protection.

1030 Q You have lately changed your opinion about the danger of lighting gas—I mean about the explosion? A Yes.

1031 Q Where you made a pile of it? A It was a pile then, but it is no pile now. What we suggest is not much more exposure, that is to light the fire with a wire and not with a lamp.

1032 Q Did you go with any party to examine the place? A No.

1033 Q Did you appoint them or take any part in their appointment? A No.

Re-examined by Mr. Lyggett—

1034 Q Mr. Henry Smith asked you why you fit upon the top of the heading as the place of the explosion, and you said it was furthest away from the air;—is there any other reason? A I think it is higher than the other parts of the mine.

1035 Q Is there any other reason, from anything you were told beforehand? A No.

1036 Q Do you know a man named Hearn? A Yes.

1037 Q Do you know whether he worked in the top heading? A I do not know whether he worked there or no.

1038 Q Is there anything that you heard from him that would assist you in coming to a conclusion? A He told me. (Overruled.)

1039 Q He said: You may call Hearn, I object to the evidence.

1040 Q He says: It is only some question as to the state of the witness' mind.

1041 Q Mr. Lyggett: There is a difficulty in calling Hearn, because he has left the district.

1042 Q What was it Hearn said as to the top heading that led you to report to any conclusion? A Hearn told me that the Deputy Dugger told him that if he had gone out the mine heading before he would have got his head blown off.

From—M. QUIN, 7 January 1906

Examined by Mr. Robertson:—

1109 Q I think you said that the check by the workmen is a fiction, one reason being fear of retaliation? A Yes

1109 Q Are you aware that prior to 1896 when the Act of Parliament was passed, miners had not in power to appoint persons for the duty employed as other miners? The witness qualified because they could not employ miners of Mount Kembla? No, to employ other colliers? A I am not aware of that

1110 Q Is it a fact that that was considered a grievance, and as a consequence an alteration was made in which power was given as follows:—“Persons employed as a mine way agent from time to time from their number or any two private, not being acting agents, who are pastured working miners, to represent the mine” You see the clause is not limited? So that if there were not employed at the mine, or any other mine, how can they be in fear of dismissal? A If they are independent men it would be in fact due to all concerned

1111 Q You said something about a Check Inspector not being competent.—Is not Mr. Keith competent? A But I did not know that he was appointed

1112 Q On the 17th? A I did not know about his appointment

1113 Q I think you are ignorant about what is going on, considering you are the President of the Union? A I have not been President very long. I thought it was a honor

1114 Q It need not be a honor so far as division of Inspection is concerned? A I am giving you my opinion as to why independent men should be appointed

1115 Q Have you not power to appoint independent men? You can appoint any men who can examine that power? A I did not understand that. We want the whole thing to be done by Government

[The Commission, at 4.30 p.m., adjourned until 9.30 the following day.]

THURSDAY, 5 JANUARY, 1906, 9.30 a.m.

[The Commission and of the Coal-Miners, Wollongong.]

Present:—

C. E. F. MURRAY, Esq., D.C.J. (PRESIDENT).

B. A. W. ROBERTSON, Esq., COMMISSIONER. | D. RITCHIE, Esq., COMMISSIONER

Mr. Bruce Smith, Executive of the Union, instructed by Mr. Wood, Crown Solicitor's Office, appeared on behalf of the Union

Mr. A. A. Asherson, Chief Inspector of Coal mines, assisted Mr. Bruce Smith

Mr. A. A. Lynghe, Solicitor, appeared on behalf of:—

- (a) the representatives of deceased miners, widows, &c. (relatives of the employees),
- (b) the employees of the Mount Kembla Colliery (miners, wharfmen, &c.), and
- (c) the Illawarra Colliery Employees' Association (the Southern Miners' Union).

Mr. C. D. Wade, Barrister-at-Law, instructed by Mr. F. Curtis, appeared on behalf of the Mount Kembla Coal and Oil Company (Proprietors of Mount Kembla Mine)

Mr. M. Byrne, Manager Mount Kembla Colliery, was also present

(Mr. J. Giesek, Secretary to the Commission, was present to take the formal notes of the evidence and proceedings.)

Mr. CHARLES SMITH was sworn, and examined as before:—

Examination—by Mr. Lynghe:—

1116 Q What is your name? A Charles Smith

1117 Q What are you? A Miner

1118 Q Where are you employed? A Mount Kembla

1119 Q How long have you been employed at Mount Kembla? A I have been there about two years and eight months in all

1120 Q And before then? A I was working there about nine years ago, and worked about nine months then

1121 Q Where you had any other mining experience? A Oh, yes

1122 Q Where? A In the North of England

1123 Q What Colliery? A Dudley Colliery, Northumberland

1124 Q How long? A I was five years there

1125 Q You might state your greatest mining experience? A I was five years at Dudley Colliery. I went there in 1899, and I left there and went to the North Mining at Yorkshire, Imstone House, for five years. Then I came to Queensland after

1126 Q What mine in Queensland? A I was working in several coal mines about there, and I was working in the gold mines, too in Queensland

1127 Q Can you yourself in the coal mines—where? A I left there, and the next coal mine I worked in was Mount Kembla, and then I left Mount Kembla and went to New Zealand, and worked at various mines there. Then I came to New Zealand, on the coal mine. And I came back here on the coal mine and worked here since you sent me right now in this case

1128 Q And what is the total number of years experience you have had as a practical miner? A Well, I will say thirty years. I have been thirty two years altogether as a little more, but I will say thirty years practical

1129 Q Now, were you working in Kembla at the time of the disaster? A Yes

1130 Q What part of the mine were you working in? A In the 24th Right

1131 Q Do you remember the number of the pillar, if you had? A The last, 100—24

1132 Q Could you indicate that on the plan? A Yes. I do not know anything about the plan

1133 Q Now, that is the mine working road there (indicates)? A Yes

1134 Q Yes. Here is the 24th Right rope road. What number did you say? A 24th Road

1238 Q. Smith and Gaudens? A. Yes, that is the place.

1239 Q. It is that one, there (indicating its position on the Chicago River). What time did you leave work that day, the day of the disaster? A. Well, I left at a bit of a hurry as soon as the explosion occurred.

1240 Q. Now, you might tell us what you observed concerning the accident you speak of, and at what time? A. As soon as I was told the news, I had a little shock there, and it stayed about a quarter of 2.

1241 Q. What was it you also said about this time? A. I was in the office. I could not hear myself speak. I was trying to speak in my mind, and I could speak to know that I could not hear myself speaking, not for a while and for a minute.

1242 Q. What happened after that? A. I could speak to my wife then, and I told her there was to be an explosion. She said, "No, it must be a big fall." And I said, "No, it cannot be a big fall, I will find out within an hour." The first thing we found was Jack Lindbergh and a wheelbarrow.

1243 Q. Where was Lindbergh? A. Just at his home, the first building in the building, No. 99.

1244 Q. Was Lindbergh standing or sitting? A. He was sitting. "Charlie, I do not know what is up; there is something wrong. There is your brother down to Miami." We went directly along the road. There was the words he said.

1245 Q. Meaning along the road? A. Yes.

1246 Q. What was the name of the wheelbarrow? A. CHS Hammon.

1247 Q. Did Lindbergh say anything else to you then? A. Yes. He said, "What do you think it is?" "Oh," I said, "an explosion, right enough, we must get out of this." He says, "Which way must we go?" I said, "Out to the daylight, down, where we are, getting our feet out of the ground." "Well, he says, "I have seen you go to the other three buildings and looked the way out, going back towards my place to the No. 4. I was at No. 10 then, and I went back and saw up three floors and looked my way out of my place. He was holding the door of the house, and I went right up to the place to bring him out. And I went to the next house, where a man told me and his son, went walking. That was the last place that I could get to know. I went out then.

1248 Q. You led that party out? A. Yes. There was, too, wherever Harry Kelly, and a pony, went out with us.

1249 Q. Where did you get the pony? A. About half way between my place and the wheelbarrow.

1250 Q. With the exception of yourself, do you know whether any of the other men knew the road out? A. I do not think there was any of the men knew the way out. They knew where my place was, but they could not tell direct where to go.

1251 Q. You knew from things they said and did that they did not know the way out by the daylight tunnel? A. Yes.

1252 Q. Now, can you tell me in which direction this wheelbarrow had been blown? A. He was blown into the 90 road from the flat. From the Road Flat, the flat light was at hand.

1253 Q. Where? A. Below. Up to hand. That is where I led in with him, just by the backway.

1254 Q. Do you know whether Hammon was a change of a house? A. Yes. He was whether in me.

1255 Q. Do you know what because of his house? A. Yes. It was blown down on to the street and left there lying. He wanted to go back for it.

1256 Q. Mr. Bruce Smith? Q. And you saw it, and to my it was blown? A. I did not see it. I did not go back for that.

1257 Q. Mr. Lyman? Q. You did not actually see the house? A. He told me his house was blown down. I said, "Never mind the house."

1258 Q. Mr. Lyman? Perhaps I might suggest to the Commission that Hammon might be called. I did not call him, but if certain he was he might be able to give evidence.

1259 Q. Mr. Lyman? It would appear that he might be able to give some useful evidence.

1260 Q. Mr. Lyman? Q. Did he get out with you? A. Yes. He was all black with dirt. That was all that was the matter with him. He was terribly black, he was not far a week.

1261 Q. He told you some things concerning the house? A. He told me his house and himself were blown up the road.

1262 Q. Now, is there anything else you desire to tell concerning the disaster—what you observed before you left the place? A. Did you observe any smoke? A. Oh yes, there was smoke all the way. I led to go from my house, 99, down the old road like.

1263 Q. When did you first observe smoke? A. As soon as ever I found this Lindbergh and the wheelbarrow. As soon as I got to that building it was coming against the air. I had good air until I met the smoke coming against the air.

1264 Q. Mr. Bruce Smith? Q. Good air, do you mean as going up to 99 as is coming out? A. Going out from 99.

1265 Q. Mr. Lyman? Q. Where did you find Lindbergh and the wheelbarrow? A. At 99, hand.

1266 Q. What part of it? A. I did not go up to his house, but I should say 100 yards from the flat.

1267 Q. It is not very much more in the town? A. I could not tell you myself. I do not know what distance they was the house up. It was the second building like off the 90 road where I left them.

1268 Q. It is not with more than 100 yards from the flat to the house? A. But then in between, well up towards the flat where I was in the two streets heading out off the.

1269 Q. Mr. Lyman? Q. Where is the flat?

1270 Q. Mr. Lyman? In the flat light.

1271 Q. Mr. Bruce Smith? It is about 100 yards—I have measured it—from the face down to the flat.

1272 Q. Mr. Lyman? I think, Mr. Lyman, the witness said he got to the second cut-through.

1273 Q. Is that so? A. The second edge cut-through. That is the last cut-through up towards the flat.

1274 Q. Mr. Lyman? Q. I don't really prefer to know because as a matter of fact, I found the very same house there? A. I could not tell to a yard or two what it was you know. I know it was not far up. I know I drove the house about 90 yards up and then to the second one.

1275 Q. Mr. Lyman? Q. Now, I want you to tell us whether you are in your house, any smoke or anything else extraordinary came down towards your working place beyond 100, past 99, 100, and 101? A. Yes. Just after I could not find a terrible first coming against the air. I was the last the coming against the air.

- 1768 Q. When did you meet that? A. Just going down to my head.
- 1769 Q. Was that before you went to Ladlow, or after? A. When I was going to Ladlow.
- 1770 Q. How did it manifest itself the first thing you met anybody? A. Yes, a very tight coat, though.
- 1771 Q. And that was coming, I think, you met the coat? A. Yes.
- 1772 Q. How long after coming that coat was it that you met the coat? A. Well, about a minute or so, I suppose, just as I had time to get down to the 'O' head.
- 1773 Q. Did you observe anything else besides the coat and the coat? A. No, nothing else.
- 1774 Q. Did you at any time see any indication of a horse? A. Not at that time, but I had done so before that.
- 1775 Q. At present I mean, returning the question? A. No. I never saw any horse.
- 1776 Q. Did you after coming out as you did the first time at a station? A. Yes. I did not go far in I went until I was loaded up. I went there long after the old station.
- 1777 Q. What is that? A. The travelling road, the old track of road where we all go in.
- 1778 Q. Do you mean in the No. 1 Right district or the left district? A. It is the entrance for both, where I mean.
- 1779 Q. How far did you get into the mine? A. The first time I suppose it was 200 or 300 yards I was a couple of miles and fetched them out. I set out on a main called from the next time.
- 1780 Q. And you go after that? A. I went there more and I was there and could not stand any more.
- 1781 Q. Did you afterwards go into the mine to inspect? A. No. I went into the mine to finish my task.
- 1782 Q. Where? A. I was on a Tuesday, I remember. I could not say the day of the month.
- 1783 Q. How long after the disaster? A. Some eight or ten days, I think.
- 1784 Q. Which road did you take on that occasion? A. We went down the shaft road to old No. 4, to be turned it, and then we went up to No. 1 District.
- 1785 Q. Did you go through Powell's Flat? A. No. We had not to touch Powell's Flat there—oh, yes, after we came through No. 4 we came through Powell's Flat.
- 1786 Q. And down the 4th level travelling road? A. Yes.
- 1787 Q. And into your own place across the main No. 1 Right? A. The main heading yes.
- 1788 Q. Now, can you tell us anything that you observed anywhere on that occasion as regards the effects of the disaster? Anything that you observed anywhere along any of the roads now travelled? A. Well, at Powell's Flat I found a few dead horses and that like, but there was nothing detached much else along there. I went into Powell's Flat in one place to look at the engine and back for a man—I think it was 72 or 73.
- 1789 Q. Did you observe anything there? A. No. Nothing extra there. Nothing detached much about there that I saw.
- 1790 Q. I want you to tell us any indications you saw either on the page or the heading or the ribbons of some thing passed on any particular place on the occasion when you went in for your task? A. I went along from where we call the 'O' heading—close to from Powell's Flat up towards 60. (No 40 is above and Powell's heading place as noted on the plan.)
- 1791 Q. Was that going up? A. Yes. We were not allowed to go to any place until the Deputy took us. I was below the Deputy.
- 1792 Q. Did you mean their heading place (Barnes and Powell's)? A. It is a main road driven up to where they were going to put a rope road, same time afterwards.
- 1793 Q. Mr. Barnes said? Q. Is it not a pillar? A. There is a pillar on the side of it.
- 1794 Q. Mr. Barnes said? Q. Do you mean Powell's heading? A. Perhaps they might call it the gasless head.
- 1795 Q. Do you remember passing Powell's Flat? A. That is the end of it. Yes, that is Powell's Flat at the end of the heading as I know it. I worked in the mine here two years ago, so I know it very well. I put a cap on the page.
- 1796 Q. You say that Powell's Flat is on the end of what you did call a heading? A. Yes, only we did not go to Powell's Flat, we got across.
- 1797 Q. What was it you observed going up there? Where was it? A. I noticed a terrible lot of a sort of sandy stuff heaving down.
- 1798 Q. Knowing about what? A. On the floor and the ribbons, and everywhere.
- 1799 Q. I want you to be particular about "everywhere." What about the groups? A. Oh, yes. They were all sort of blackened on one side of the rope road.
- 1800 Q. Which side? Just think carefully? A. Well, I was working the other side as I was going towards the No. 1 heading.
- 1801 Q. How far up that going had did you observe these sandy conditions? A. I did not go up there very far. I was crossing that, I mean, to go on towards the No. 1 heading. I kept going on across on the travelling road.
- 1802 Q. Mr. Barnes said? Q. Do you mean you just saw this as you were going across the head? A. Going across all the head, and I crossed the north branch. I know it was 50.
- 1803 Q. You really crossed the north branch? A. On the travelling road I noticed—(interrupted)
- 1804 Q. Mr. Barnes said? Q. I thought you got the mine directly from there—was it whether he went along Powell's head or not, crossed it or not there.
- 1805 Q. Where? I crossed it in one place.
- 1806 Q. Mr. Barnes said? Q. When you crossed it, did you get outside Powell's Flat up the going head? A. No. We kept on the travelling road.
- 1807 Q. Then you were coming up that head at all? A. No. We kept on the travelling road from there I just crossed the 40.
- 1808 Q. I want you to think carefully now whether you did go up the going head before you came along the travelling road? A. No. We came along from Powell's Flat right to the heading, and then we crossed the 'O' heading to go into the mine where my work was.
- 1809 Q. So that these indications of coal were only in crossing that flat? A. Yes. I met it from there further on.
- 1810 Q. How far further on? A. Right away to the No. 1 main heading.
- 1811 Q. Then do I understand that all the way along the 4th level Travelling Road you saw these indications of coal on the floor, the ribbons, and the page? A. Yes. I went into a head there. I had to get some tools.

- 1812 Q One minute now; up to the same landing, the No 1 Right main landing you say? All the way? A Yes.
- 1812 Q Now, were the rusty conditions on only one side of the props? A Further up I noticed it on both sides.
- 1814 Q Where? A I could not tell you. I went onto a room called Bena's place to fetch his back out—see, that was it.
- 1815 Q Did you go right up to the top? A Yes.
- 1816 Mr. Bruce Smith Q Is that where you found it was black on both sides? A Yes, just about there.
- 1817 Mr. White Q The props? A Yes.
- 1818 Mr. Langley Q Now, how did you turn in to go up to Tottis and Bena's place? Where did you turn off the 4th left travelling road? A I could not tell you exactly which road, because I was not working up that way.
- 1819 Q Just both ways. How is St. Paul's Flat, where you have come down, along here. That is the 4th left travelling road. Here is the main No 1 shaft. Now, my love is Tottis and Bena's working place. I want to know where it was off here that you found it in the up times? A I think it was the back before we could get to Bena's place, because there was a fall there in between. So we had to come along there until we could come to a cut-through. We could not get through for a little bit of a fall.
- 1820 Q What was the fall? A Just a little bit of a fall of the roof, about a couple of feet thick.
- 1821 Mr. Bruce Smith Q Did he go straight up No 86? A Yes.
- 1822 Mr. Langley Q He did and he turned off about two hours before 88.
- 1823 Q Where? I could not say whether it was one or two. I could not remember the exact spot.
- 1824 Mr. Langley Q Could you tell me whether, up to this fall that you met all the indications of the roof were on the side that you were making, or on the side facing the other way? A It seemed to me to be about all above you there.
- 1825 Q Now, up to there, on which side was the roof on the top? A At first, in that hard where I got down back, it seemed all black together there.
- 1826 Mr. White Q That is the best time you could all think? A Yes.
- 1827 Mr. Langley Q As you went up to that hard to go to Bena and Bena's place, did you see anything up those holes? A Well, I saw a little bit of roof bent down here and there, a little bit but nothing.
- 1828 Q Did you see any signs of having up there, any loose bricks? A No.
- 1829 Q Did you see any dust on the props there? A Oh, yes, in that place where we got the tools.
- 1830 Q Was there all or exactly what you saw there? A I saw a lot of greyish-looking sort of dust. It looked as if it had been bent a couple of times, to me.
- 1831 Q Where was this dust? A On the floor and on the tools. That is how I noticed it so much. It was on the tools.
- 1832 Mr. Bruce Smith Q Up at the end? A Up to the face some of these tools were, and some further back.
- 1833 Mr. Langley Q Were the tools upon the floor? A Some were standing against the rib, and some were lying about.
- 1834 Q Do I understand that this grey dust was all over the tools? A Yes.
- 1835 Q Was that grey dust of over the tools? A I was a lot of greyish-looking sort of dust, and it was a thing about where we made a fall.
- 1836 Q Could you give me a row of rows where that grey dust had come from? Was it from a fall, or where? A No. What I thought is a dust after the explosion like it settled there. That is the opinion I formed upon it.
- 1837 Q What do you mean by after the explosion? A I know when an explosion occurs the dust has to settle somewhere or there.
- 1838 Q You mean the burst dust? A Yes.
- 1839 Q Did you notice whether there was a greater quantity there in that particular place than in any other place? A I saw more there than any place, because I did not go in any further place than I saw more there into my place. That is where I saw the more.
- 1840 Q In addition to the dust you saw, was there any other collection of dust having been in that place, as regards the props or beams, or the roof after? A I did not notice anything, only the dust, and the beams being there.
- 1841 Q Did you see whether any of the beams there were bent? A No, I did not.
- 1842 Q Did you notice whether any of it was sagged? A I did not notice that. There were three of us with two lights and one of our lights.
- 1843 Q Leaving Bena and Bena's place where did you go to after that? A I came down then what a and the back landing, and then I saw more falling down to the 9th Right, towards my tools then.
- 1844 Q Do you know where Bena's drill hole was working in No 86? A I know the spot, but I was away there. I know where it was.
- 1845 Q Did you go to that? A No, I did not go to it.
- 1846 Q As you came down the back landing did you observe anything at all? A Little bits of bits of roof about a foot thick in places.
- 1847 Q Anything else? A That is all I noticed, besides a bit of dust on small, coming along.
- 1848 Q They dust or black dust? A It was like the roof dust that was.
- 1849 Q Where you left the back landing where did you go? Into your own place? A I went round, yes, into that first fly.
- 1850 Q And then where? A Up to the 80 landing. And then we had to wait while the deputy went up to the back landing's tools.
- 1851 Q Did you not or anything in 80? A Only a little light dust there—not as much dust as.
- 1852 Q Did you notice any of the beams there? A There was no beams, not about there, no.
- 1853 Q Did you notice any signs of burning or charring of the props? A No.
- 1854 Q From there about did you go? A Along to my last time, 84 hole.
- 1855 Q How from there? A We went back again to the 84 with our tools.
- 1856 Q Was there anything extraordinary or poor was bent No 91? A There was nothing extraordinary.

Witness—C. Smith, 8 January 1935.

extraordinary, but what I expected—I had a very bad road there, and I expected to see it hanging

1807. Q. You came back to the T-14, then where did you go? A. Round the rope road out to the daylight tunnel.

1808. Q. Then straight out? A. Straight out.

1809. Q. Is that all? Did they tell us concerning indications of either force or burning after the disaster?

A. Yes, that is all I noticed. That was the only time I was in that way.

1810. Q. You do not wish to say anything about any particular thing that you saw? A. No. That is all I have to say about it.

1811. Q. Did you have any comment from what you observed, or from what you knew beforehand, as to the cause of the disaster? A. What do you mean?

1812. Q. What was the cause, or your opinion, of the explosion? A. But, that's what I found.

1813. Q. Could you name the Commission to the place where it probably originated? A. I think I could find very near.

1814. Q. What would you say? A. I could not tell exactly.

1815. Q. What is your impression? A. It is somewhere on the left-hand side of the No. 1 main heading not far off there, according to what I saw as I was travelling round. I was only round that once.

1816. Q. What do you mean by the left-hand side of the main heading? A. That is round where I came from that hole.

1817. Mr. Hunter. Q. The left-hand side as you came out? A. I am speaking of looking in now.

1818. Q. The left-hand side as you go up the main heading? A. Yes. I am looking where now.

1819. Mr. Langley. Q. Do you mean towards Miller's place, or towards Test and Bruce's?

[Mr. Langley explained the position of the various places in the mine as the witness knew, and the witness indicated the locality in which he thought the explosion originated. This locality Mr. Langley described as "between No. 4 main level and two or three holes to the left".]

1820. Witness. I could not say exactly. I noticed it looking back all over the place.

1821. Mr. Bruce Smith. Q. Does he mean near Test and Bruce's, where he went for the tools? A. Somewhere near there, yes.

1822. Mr. Langley. Q. You said then that you noticed it getting particularly thick about there?

A. Yes.

1823. Q. What do you mean? What is "thick"? A. I mean it looked more dusty all over the place all round there.

1824. Q. Do you think that there was one big explosion, or more than one explosion? A. I think there was only one. I was very frightened of the sound one myself, but it did not happen.

1825. Q. Do you think that there was one big explosion, or that there were a series of small explosions after the first had started? A. I think there was only one explosion and when it started it went one way and another.

1826. Mr. Hunter. He says that the first thing that happened was that he felt it and if dead, but I want to find out whether just before that, instantaneously, he did or did not hear any sound, and, if he did, what sort of sound.

1827. Mr. Langley. Q. Before you felt the darkness was there any sound? A. No sound before that.

1828. Mr. Hunter. Q. You felt yourself dead; but just before you felt yourself dead was there something that appeared to explode to you who saw anything? A. Yes.

1829. Q. When was that something? A. Well, I do not know how I can explain it myself.

1830. Q. Put it in the best language you can? A. It was like a succession or something came to my mind that as if that I noticed.

1831. Q. You felt it rather than heard it? A. Yes.

1832. Mr. Langley. Q. At that time which way were you facing? Were you towards the face as towards the engine? A. I think I was standing looking in my side at the time. I would be facing about half circle looking across my side.

1833. Q. Can you go any further than when you have already said as to the position where you think it occurred? A. No. That is the only place that I understand. I only saw round that way once, and that was my opinion of it.

1834. Q. Have you ever been in an explosion tunnel like this? A. Yes, in two small ones.

1835. Q. Where? A. In England. The Dudley & Jersey, Northumberland.

1836. Q. What part or what? A. I think it would be in about 1831.

1837. Q. Did you observe conditions similar to those in the conditions you observed there? A. Yes. That is what made me know a bit of mine when I left it.

1838. Q. And do you know what the Dudley explosion was? A. Yes.

1839. Q. What? A. A gas explosion, because my side hit it up, so I have known was caused. It was only a small one. I took my shirt off my back.

1840. Q. What was the other explosion? A. It was another in side one like, in the same colliery, only on the other side.

1841. Q. When? A. About a year after, I suppose, only a small hole was, you know. Two or three men in the mine and about.

1842. Q. And was that a gas explosion? A. Yes.

1843. Q. Now, leaving the disaster I want you to come to the time you were working in the shaft system. When was that? A. I think about two quarters before the explosion hit.

1844. Q. When were you working? A. In No. 45.

1845. Q. Was it one year later? A. A/1/ Four.

1846. Q. Where was he now? A. I was him yesterday morning. This was long at Mount Kemble. I was in going to work.

1847. Q. I want you to tell what it was you observed while working there, if anything, exactly in your own words, fully. A. One day after we had a wind my side went back, and there was a bit of gas in up, put a little bit, you know, after firing the shot.

1848. Q. I want you to give the details of how the gas hit up? Tell us exactly what took place in detail?

A. After we fired the shot my mate went back first to the place. He got in, I suppose, 5 or 6 feet, it may be 3 feet, off the front, there was a lump in his hand, a shoe lump, and it lit up and blazed all over the roof, you know.

1909 Q. You say it blazed all over the roof—how far did it blaze? A. Perhaps 30 feet back, I suppose. Just a bit of a slip you know—a bit of a lunge back.

1910 Q. Did it leave your mark? A. No. It was a very small quantity of gas, and it would just go along to the roof. Of course my mate popped himself back out of the roof. He had his lamp up like this [indicating] looking to see what the shot had done.

1911 Q. How long was that after the shot had been fired? A. About a minute. I knew I was stopping, having a drink, at the time.

1912 Q. Had the smoke cleared away at that time? A. Pretty well. It could not get away very quick.

1913 Q. And was anything done after that happened by you or your mate? A. I told the deputy when he came in about it.

1914 Q. Who was it you told? A. David Evans.

1915 Q. What was he doing? The day deputy? A. The day deputy.

1916 Q. What was it you told Evans? A. I told him when he came in about 1230—I go out at 12—that there was a bit of gas lit up in the place. "Oh," he said, "there is no gas here." I said, "No, it is here now. It has been here right enough." Then I told him that we had not any enough to clear it out properly, and he said, "The breeze is well up at the face." I said, "Yes, but there is no room at the back of it." I showed him where there was not room. This place was between 2 yards wide for about a yard in, and there were pillars and others put in, and the between the other side, and actually there was not room enough for the air to come round at the back of it. We took the air in at the roof, and there was no room for it to go back—my mate, I would not get to the back of it. I described that to him, and he said, "Oh, well, you have not far to go now."

1917 Mr. Smith Q. You mean that the breeze was coming in the 12? A. Yes.

1918 Mr. Bruce Smith Q. No room between the face and the breeze? A. No. It was a side enough in the place. It spread on to 8 yards wide, and back here it was only a yard, or hardly that. There was a lump that I could not get just between the breeze and the end at the back of it. I told him there was not enough space, such as I had, here and there, and he said, "Oh, you will be finished shortly."

1919 Mr. Egan Q. Could you show at all where the head shot was? Did you touch the 6th Right rope and go to your place? A. At that quarter the coal was not started. It was started the following quarter.

1920 Q. Did you then into the 6th Right to get to your working place? A. I turned in just exactly opposite Mike's Place.

1921 Mr. Egan Q. There may have been some change in this No. 66, if there has been No. 66, Rogers could explain it.

1922 Mr. Egan Q. Perhaps Mr. Rogers could show him exactly where he was working?

1923 Mr. Rogers Q. You know James' heading? A. Yes.

1924 Mr. Rogers Q. These were here at that time [indicating on the plan the ends of James' heading].

1925 [Witness] It would be somewhere down James' heading. I was working somewhere off James' heading.

1926 Mr. Egan Q. Can you say what time in the quarter it was? A. I could not tell you exactly.

1927 Q. Was it two quarters before the disaster? A. Yes.

1928 Q. Was it about Christmas time? A. It must have been the quarter after Christmas.

1929 Q. Just try and think what day it was about Christmas? Yes, it was.

1930 Q. About how long? A. It is a day four quarters back. It was in the first quarter of the year.

1931 Mr. Egan Q. Last year? A. Yes, it is the beginning of last year. That is when it was.

1932 Mr. Egan Q. Now, can you tell us anything or even when anything happened to you? A. About a week afterwards it lit up again.

1933 Q. I want the full details of that. "Lit up" is no reference to us? A. I went back after I had fired a shot. I went back to look what the shot had done.

1934 Q. Was this in the same place? A. The same place. And I went back with my lamp on my head, looked on my way.

1935 Q. How long after the shot had been fired? A. About a minute, perhaps, or something like that. And when I got back near the face there was a bit of a light up again, of course. I reported that to Mr. Evans the same way.

1936 Q. When it lit up again, what did you do? Did it burn you? A. No. I felt it warm, and I popped back. It was light on my cap, I felt it a bit hot on my face.

1937 Q. How far were you from the face? A. About 6 feet, I suppose, where it lit, something like that.

1938 Q. What happened then? A. Where Mr. Evans came in I reported to him, and he told me the same thing—that you would now be finished there.

1939 Q. Do you know how far it went back? A. Four or five yards back from the face.

1940 Mr. Egan Q. Did you see it? A. Oh, yes. It was so incalculable to me it

1941 Q. Did you see how far it went back? A. I saw it lit up in the hole, and then came back to the face and knock it off out.

1942 Q. What time did you see Mr. Evans? A. Somewhere about 1 o'clock, or between 1 and 2. He generally used to be round about that time.

1943 Q. What did you say to him? A. I told him the gas lit up again, and he told me the same story, that we would be finished there now, that we were near the disaster—the head was very near down the disaster.

1944 Mr. Bruce Smith Q. Just tell me exactly what he said? A. He said, "Oh, there could not be any gas. It was only my mate,"—well, so near it was that I did not know what it was at all. But I knew better than that. I had seen a bit of gas before that day.

1945 Q. He told you you would now be near of the disaster? A. Yes, he said the place would soon be stopped, it would soon be far enough down; and we were nearly down there.

Witness—Q Death, 4 January 1884.

remains left on. The Court thinks that on the whole that evidence is properly received, and allows the evidence to be given, whether or not it will be of any higher value than it can be of possibly received by the receiving of that evidence. The Court does not think it proper to refuse to hear the evidence, although the Court may, by such an order, be able to judge of the expediency of the rule without it as with it. That may be so. The Court does not see its way to reject the evidence.

1894. *Mr. Webb* | I have cited her allegations besides Mr. Evans saying so.

1895. *Mr. Webb* | You are relying on the evidence of contraband notes of violations of the rule being admitted?

1896. *Mr. Webb* | Quite so.

1897. *Mr. Webb* | The Court admits evidence of specific cases. Of course those cases vary with their number.

1898. *Mr. Evans* | I think I ought to say as representing the Chief Inspector that if this position is going on, and is decided to be dangerous by the officers by the court represented by Mr. Lyngby, they ought at once to make some representation to the Department with regard to the continuance of what they deem to be a dangerous position.

1899. *Mr. Webb* | That Court is not going into the question of what the officers ought to do.

1900. *Mr. Evans* | I mean to add to the inquiry now going on. That is the first time that it has been brought to the Chief Inspector's notice that the officers are in a state of fear with regard to the position going on.

1901. *Mr. Webb* | This inquiry cannot go into that question.

1902. *Mr. Lyngby* | Mr. Evans would permit me to say that the Inspector can see that position if they go and look.

1903. *Mr. Webb* | If that evidence is given it may help Mr. Atkinson himself to come to some conclusion.

1904. *Mr. Lyngby* | Q Now, I want you to tell us when, broadly, a shot was fired at Esplanade in your writing place, and by whom. And give us the particulars of how it was fired. Where were you working? At what number? A. I am working on the second floor, No. 1 District.

1905. Q What is it, a pillar or a board? A. A board.

1906. Q Do you know the number of the board? A. Sixty-four.

1907. Q Is that the board where a shot was fired that I am going to speak of? A. Yes.

[Mr. Evans said that No. 65 is not involved in the plot; it is a cover place. He indicated its locality on the plan.]

1908. *Mr. Lyngby* | Q Volving the number of that particular board, is it so or is it not what you would call a dirty place? A. Yes, that road is very dirty.

1909. Q Is it so or is it not a dirty place? A. Yes, it is a bit dirty.

1910. Q And on two days on the day that the shot was fired at that place, call by whom? A. Well, I worked on it three days, and we fired each day.

1911. Q Tell the first day you worked at it, when was that? A. The Monday after Christmas, that is when I started.

1912. *Mr. Webb* | Q Take Christmas? A. Yes.

1913. *Mr. Lyngby* | Q And what was the first day you worked? A. Tuesday and Wednesday.

1914. *Mr. Webb* | Q Now, on the Monday after Christmas, who fired the shot? A. John Lawrence.

1915. Q What is he? A. He is what we call the person on duty, an officer—they term it

1916. Q Is he the person appointed to fire shots? A. I suppose so. He carries them at any rate.

1917. Q About what hour on the day that he fired on the Monday? A. About 2 o'clock, I believe.

1918. Q At the time of the firing of the shot were there present those dirty conditions? A. Oh yes, it was a little bit dirty.

1919. Q Were anything done towards watering the place?

1920. *Mr. Webb* | I think the last thing is to ask you what you done.

1921. *Mr. Lyngby* | Q Tell us exactly when was covered by the shot-fire, and how the shot was fired? A. When the shot-fire came in, he said "Are you ready?" I said "Yes." So he took his back out and sent the fire off. We were at hanging on the hole, the bench of fire, and he undid his lamp, and sent the bottom off, and lighted.

1922. Q Lighted it with what? A. With his lamp, the oil lamp. And I had not been used to using anything so long before in my life. I told him I did not think it was good enough for me to be working with a loaded lamp, so I did light up the shot with an unloaded lamp. I did not feel comfortable, and did not like it, and I told him so when we were the lamp had been looked for years and I had a nervous one collected.

1923. Q What answer did you give the man in case? A. I do not know what sort of answer. He did not say much. I said "I am not ready to get a bit of work and give it," and he said "No, there are no guns in my hands." That is, you give to put wires through to light it.

1924. Q And he said "No. There are none in my hands?" A. He said, no, he could not get at it; there was no oil in my back to answer it; not with that lamp he had.

1925. Q After he fired the time what happened? A. He, it exploded then and knocked down the rail.

1926. Q Did you notice any further result from the explosion of the shot? A. Well, it was a bit smoky and dirty for a minute or two, but nothing much.

1927. Q What did you say? A. The shot came along with the smoke as we were going back.

1928. *Mr. Webb* | Q You say not very much? A. I say not very much. A little dust and smoke when we were going back.

1929. Q So, so that all that the shot-fire did? A. Yes, that is all he did.

1930. Q Was anything at all done to water the rapidly, where the shot was being fired? A. I never saw any.

1931. Q If it had been done must you have seen it? A. I should have felt it too.

1932. Q In your opinion was that a dangerous thing to do? A. I thought it looked very dangerous to have a naked light to light that shot.

1933. Q As a practical matter? A. Yes. Though it might be so, enough, it did not look safe and it did not look comfortable; that is my meaning.

1934. Q As a practical matter, in your opinion it was a dangerous thing to do? A. Yes, it did not look comfortable at all.

2395. Q Was there only one shot fired that day? A That is all.

2396. Q Tell us exactly what happened on the Tuesday? A We fired two shots on Tuesday.

2397. Q Give us the full details of it? A The same way exactly as we did on Monday.

2398. Q What were the conclusions as to that? A Just the same. We fired the shot, and a couple of hours afterwards we fired another one.

2399. Q And on those occasions did the explosion of the shot cause the dam? A Just about that time.

2400. Q About how high was it the shot was raised on each occasion, roughly? A When I was going back to the shot there was smoke and dust all through the place, a haze of it, and smoke on the top.

2401. Q But the shot you saw was permeated through the whole place? A Yes, a certain amount of it, dust and smoke.

2402. Q On the Tuesday did you say anything to him about that? A Oh, we just had a lot of a laugh then. We got used to it, I. You can get used to anything, you get hardened to anything like that.

2403. Q Now, were any precautions taken on the Tuesday regarding widening that roadway? A No.

2404. Q On the Wednesday what happened? A We fired one shot on the Wednesday.

2405. Q In the same way? A Yes.

2406. Q Forgive me? A Yes.

2407. Q In what way did he fire it? A Just the same way as the others.

2408. Q Were the conditions the same? A Just about the same then.

2409. Q As to after the explosion what about the dust rising? After the shot had been fired, after it had done its work, what about the dust rising in the place? A It would not be bad, it settles down you see after a few minutes.

2410. Q But did it rise? A Yes, of course it rose with the shot exploding.

2411. Q And settled down again? A Yes.

2412. Q On the Wednesday were any precautions taken as regards water? A I never saw anything to change at all.

2413. Q Are there the three occasions you speak of? A Yes.

2414. Q Now, do you consider, in a practical sense, that it is essential to the safety of the mine that the safety lamp should not be used to fire a fuse? A It is more satisfactory to me to see those men who were there in the safety light.

2415. Q Do you consider it is essential to the safety of the mine, as a practical matter? A Yes, I do.

2416. Q To all the mines that you have worked, or in any other part of the world, have you known the safety-lamp to be used to fire the fuse? A Not the safety lamp; never. I have always learned not to light with such paper, and I reckon it is the safest thing you can have, too. I do not believe in fuses to light the shot.

2417. Q What is such paper? A You make it with sulphur. The fuse like a pipe, as you know it. The last time I was at Keweenaw I had some the Keweenaw. That was the first quantity we worked after the explosion, here—the last quarter we work at.

2418. Q You are a member of the Union? A Yes.

2419. Q Reconciliation No. 1 (Reconciliation road)—now do you say in support of that recommendation? I support that in my rate. You cannot get too much of that, in my rate.

2420. Q Give me some reasons why it is essential that deputies and shot fires should have the theoretical knowledge? A You mean like being examined?

2421. Q Yes, by the Examining Board? A Yes, because some men are sent to a job to do it and are not qualified for the job. Plenty of men a lot of times, or a relation or something of that—they send them in the hardest, easiest job, with the biggest money. That is how I look at it.

2422. Q As far as you observed from the shot firing to this shot fire everything in them were in your opinion did he appreciate the danger that was there? A He appreciated what I said, that I did not think it was hardly fair to unlock that light to do fire.

2423. Q Did he appreciate it? A Yes, he agreed with me that it was not right.

2424. Q Did he give any reason for comparing that practice though it was not right? A No, he said the other men had been doing it before they had changed shots. He had been on night shift—the other men. The ground had been standing all, for a while.

2425. Q The only reason he gave was that the other men had been doing it before? A Yes, the other men on the other shift.

2426. Q Well now, have you anything else to add about deputies in particular and shot fires should pass an examination? A I say they should by the safety of the people that work in the mine. I have seen any amount of different bosses and deputies in mines in my travels. I have seen bosses down before and get a job straight away on home, and they had no experience or nothing.

2427. Mr. Deane (to J. J. Hine or in English)? A In Question that was. I could not stand here very long. I know the mine.

2428. Mr. Deane (to J. J. Hine or in English)? A Deputy.

2429. Mr. Deane (to J. J. Hine or in English)? A Deputy.

2430. Witness: I am just saying where men get showed into before where they are not qualified to do the work.

2431. Mr. Deane (to J. J. Hine or in English)? A In this State can you send out men where men who, in your opinion, were incompetent, were appointed as deputies and shot fires, leaving out Keweenaw?

2432. Mr. Deane (to J. J. Hine or in English)? A Yes.

2433. Mr. Deane (to J. J. Hine or in English)? A Yes, the man who did not support the mine. I will just read you some thing. (Reads from a book.)

My down in the deputy would not, unless having to go, and Keweenaw mine very long before of go and get I not know, and it was not my duty to look for it.

If a day deputy would that would you possible by was a competent man to be a day deputy?—

2434. Mr. Deane (to J. J. Hine or in English)? A It is outside the scope of the inquiry. The only question is whether they (deputies) should be examined.

2435. Mr. Deane (to J. J. Hine or in English)? A It is a matter for argument from the side we before the Court, rather than a matter to be put to a particular witness. I do not say that it would not be legitimate to put a question like that to Mr. Deane, possibly it might.

Mr. Deane (to J. J. Hine or in English)? A Yes.

Recess—7 Inst. 5 January 1909

- 2570 Q Now, turning to Recommendation No. 3 [Recommendation read],—in that, in your opinion, it is a not necessary precaution? A I know opinion that they should order Dry lamps if it is necessary, or safety-lamps.
- 2571 Q And with which would you leave the deciding of that? A The Inspector should be the man for it, in my opinion.
- 2572 Q No 3 [Recommendation No 3 was read]? A I agree with the fact. You cannot beat a fact for regularity.
- 2573 Q Now, you can say as much as you want to on that matter. What persons have you for supporting the particular recommendation? A Because a furnace is never kept regular, it cannot be kept regular. It is full up it will pull for awhile, and it will shut down again, and a few are one combined pull—more pull altogether, more strength, and regular.
- 2574 Q In what other way is a furnace objectionable? A It makes a difference sometimes which way the wind is blowing outside a mine, and it does not make any difference to a fan at all. In my opinion, it does not. And that is about the main one, the way the wind blows.
- 2575 Q But, in case of a disaster, what are the advantages of a fan? A Do you mean to prevent a disaster?
- 2576 Q In case of a disaster, in what way would a furnace be distinctly objectionable? A I do not know.
- 2577 Q Supposing the disaster in Kilmia had happened in the shaft section instead of in No 1 Right? A It would have gone up the shaft for a certainty.
- 2578 Q What would be the most probable result? A I could not tell you that.
- 2579 Q What would be the effect on the fan,—had an explosion of the magnitude suggested in the shaft section, what would have been the probable consequences? A It would go up the shaft.
- 2580 Q What would follow from that? A It would stop the whole shaft. It would wreck it.
- 2581 Q What would follow from that? A Of course we would be all contained in a few minutes. Of course the job would stop at once—in a moment, no air.
- 2582 Q In any part of the mine? A No.
- 2583 Q Now, Recommendation No. 4 [Recommendation No 4 was read],—I do not know what you would say upon that matter, as to the advantages of the mine or as to whether they should be ventilated. A I do not know exactly what they mean wastes. What they mean wastes in the Old Country is the country that stands on pillars and draws out.
- 2584 Q Well, after the pillars have been drawn? A Oh, that should close all up. You would want nothing there. It is supposed to fill badly.
- 2585 Q But if it does not close all up? A Then you must block it up—that is my opinion.
- 2586 Q And if it? A Yes.
- 2587 Q Recommendation No 5. "All places except working places to have not through not more than 30 yards apart." A Yes, I will agree with that, too.
- 2588 Q Then your general experience, what has been the distance of cut-throughs in England,—how far have they been apart as a general experience? A I think about 30 yards and 20 yards, but it just depends on the nature of the find over them.
- 2589 Q In your opinion, would cut-throughs 30 yards away from one another interfere with the safety of the roof in any way? A If it is a weak roof it would. The bigger the pillar, the better for the roof.
- 2590 Q But would it interfere to a material extent, say, with the general run of roof? A No; I do not think it would.
- 2591 Q And do you consider that 30 yards apart would be a reasonable distance? A Yes, I think so.
- 2592 Q Recommendation No 6, "Inspection with locked safety lamp in all cases." There is no exception in the Act which provides that they need not inspect in the morning if gas has not been discovered for twelve months before,—do you think that exception should be abolished, and that there should be an inspection with a safety lamp in every place? A Yes, there should be.
- 2593 Q Recommendation No 7,—are you familiar with the use of the hydrogen flame? A No, I am not.
- 2594 Q You do not understand that? A No, I do not.
- 2595 Q Do you consider it expedient to have a monthly examination with a lamp that will show less than 2 per cent of gas? A I can hardly tell what 2 per cent of gas is. I could tell the thickness of it myself if I tried it.
- 2596 Q Recommendation No 8 [the Recommendation was read], what do you say to that,—do you think that 500 cubic feet of air should be supplied for the consumption of a horse per minute, in your opinion? A I do not exactly understand the measurement of air myself.
- 2597 Q The figure is very clear that none of the mines posted to understand that. They contend five, of 170 cubic feet per minute. For a man, none ought to be provided for a horse. It is very clear that 100 cubic feet is the amount required for a man, with a margin added, and if a horse requires five times as much as a man, you do not want to multiply both man and horse. If a man requires 60 cubic feet, and 10 cubic feet is the margin, and the multiplier is 5, you would multiply 60 by 5 and add the margin 10.
- 2598 Q Mr. Gwynne? A Recommendation No 9, "All doors created so as to close and remain closed of own motion." A I agree with that. That is very good.
- 2599 Q Is that the practice in England in collieries? A There is a key to close the door and shut it again.
- 2600 Q But were they, as far as you know, self-closing doors? A Some had.
- 2601 Q And Recommendation No 10? Double doors are driven between main entries and returns and main headings, you understand—the double doors instead of the single doors,—you approve of that? A Yes.
- 2602 Q "Strict supply of safety lamps and their regulation, equal to one-third of number of persons employed below ground, to be kept constantly on good order and ready for use" (No 12)? A That would be very kind.
- 2603 Q What was your experience at Kilmia? A I could not find any after the disaster.
- 2604 Q Did you look? A Yes, because I wanted to get both of a good lamp.

- 2121 Q. How long were you delayed? A. I think there were some cases.
- 2122 Q. Where did they come from? A. I do not know. I saw them come in some cases. I do not know where they came from.
- 2123 Q. Until these lamps came from outside quarters could you get a lamp to provide the gas? A. No, I could not. There were only four on Board, I think, altogether, and I could not get one of them.
- 2124 Q. And if you had been able to get a lamp immediately do you think you could have rendered greater assistance in saving life? A. A lot of us could. We could have got further to seaward.
- 2125 Q. (Re-examination. Is it not true?) Do you know anything about the watering of mailboxes? A. I have never then entered in charge, but not more.
- 2126 Q. (Re-examination. Where is that—at Hants?) A. Yes, on the duty route.
- 2127 Q. Mr. Lapsley? Do they water the travelling roads too as well as the haulage roads? A. In some places they do where it is a bit deep.
- 2128 Q. You might tell us as an average how often you saw Mr. Rogers, now, in a month or three months or a week—how often did you see Mr. Rogers underground? A. I could not tell you. I have heard tell of him many a time when I have not seen him.
- 2129 Q. How often have you seen him underground? How often has he come to your place? A. About once or twice a week, perhaps.
- 2130 Q. In two years? A. Yes. I could not tell you exactly how many times.
- 2131 Q. (Re-examination. Are they now used?) In your opinion, are these mailboxes now quite large enough in case of an outbreak or any slight getting away, or would they be better enlarged? A. What is the use? They are 3 ft 6 in.
- 2132 Q. Mr. Lapsley? They are 3 ft 6 in.
- 2133 Q. (Re-examination. But can we tell him?) A. Yes, I can tell him.
- 2134 Q. (Re-examination. He knows the size, but he does not know the kind of measurement.) A. Yes, I know the size, but I do not know the kind of measurement.
- 2135 Q. (Re-examination. But there is a lot of this evidence in which you say "by your recollection all that" and he says "Yes" and that does not help the Commission at all, unless he gives some explanation.) A. Yes, I know the size, but I do not know the kind of measurement.
- 2136 Q. (Re-examination. Not at all. The question is whether his experience is that the mailboxes are not big enough.) A. Yes, I know the size, but I do not know the kind of measurement.
- 2137 Q. Mr. Lapsley? In your experience are these mailboxes large enough to provide for danger? A. I do not know what size these are, but what I have been used to see is 3 ft 6 in.
- 2138 Q. In what conditions were these mailboxes 3 ft 6 in? A. In the Old Quarry, but, of course, I did not notice very much in the other ones.
- 2139 Q. (Re-examination. You mean 3 ft 6 in whatever the height might be?) A. I mean in from the rope to give us room to get in.
- 2140 Q. It has nothing to do with the height? A. No, 4 feet in the height of some, but that is the square 3 ft 6 in.
- 2141 Q. Mr. Lapsley? (Re-examination. Is it not true?) I think that has been touched when I was giving his evidence generally. If you think that contention should regularly be given as to how they can get out of the mine? A. Oh, yes.
- 2142 Q. Do you know all the ways to get out of Kieldale? A. There is one road I do not know very well to get out.
- 2143 Q. Which one is that? A. What they call the daylight tunnel, from the shaft.
- 2144 Q. How many ways of getting out are there in Kieldale? A. There are four tunnels that I know of because the shaft, and I count that a way too.
- Cross-examination by Mr. Wade.
- 2145 Q. Have you not found out these different roads out and by yourself? A. I have only been compelled to find one road out. That was the day of the explosion.
- 2146 Q. It is not an answer to my question. Have you found out the rest by yourself, or were you taken out specially? A. No. I have been in the other roads. That is all I know.
- 2147 Q. I want to know, have you found them out for yourself, or have some official taken you round and shown you? A. No official.
- 2148 Q. You found them out for yourself? A. Yes.
- 2149 Q. And the only one you do not know very well is the one named by the shaft daylight tunnel to the extreme left of the plan? A. Yes.
- 2150 Q. That is the one that goes round by the face of the old long wall workings? A. Yes.
- 2151 Q. That is a tremendously long way round? A. Yes.
- 2152 Q. Miles and miles? A. I do not say miles and miles, but perhaps it would be a couple of miles.
- 2153 Q. Not more than that? A. It would be more than that, perhaps less.
- 2154 Q. Now, how did you find your way out on the day of the disaster, just by using your common sense? A. Yes. I found the way by meeting the fresh air.
- 2155 Q. You would tell when the breeze was coming on, and you always kept your face to the breeze? A. Yes.
- 2156 Q. And you got out along a road, you had not travelled before? A. Yes. I had never seen it before.
- 2157 Q. Now, about these mailboxes in England. Do you know how far apart they are? A. I could not tell you—20 yards, I think, we used to have them. Then there was one in between on the other side, so that if you missed the one you could get the other.
- 2158 Q. Do you know how wide the roads were? A. We had different widths there. We had double roads in some places. They used to run what we call square now.
- 2159 Q. Where they all 3 ft 6 in? A. That is what we used to prefer to make them.
- 2160 Q. You have a good deal to trouble in New South Wales from the mailboxes being too small? A. I never heard tell of it anywhere. I never heard tell of any working men grumbling about the mailboxes being too small, in fact, in Mount Kieldale there is not much of it, but we do it in a very steady way. It had been running on a long time that is where you want the mailboxes.
- 2161 Q. With a regular place you have no time to get out of the way if you are walking on the rails? A. No.
- 2162 Q. You said you approved of a monthly inspection—do you remember saying that? A. Yes.

- 2150 Q By whom? You did not tell us that, I think? A By the officials of the mine, I should say.
- 2151 Q But they inspect every morning, do they not? A Yes, but the monthly inspection is to go through all the old air roads.
- 2152 Q You would not suggest a special inspection for go across a month in addition to the daily inspection? A If that I mean is about the special inspection. I thought it would be the inspector who would go round once monthly thoroughly to see that these other men have done it, to see that everything had been kept right.
- 2153 Q You know that every working place is examined for you before the men starts work in the morning? A I believe that.
- 2154 Q It might be done every day? A If it is not, it should be.
- 2155 Q And you know it ought to be examined again during the daytime? A Yes, before a shift is laid up it should, in an afternoon.
- 2156 Q And you know that the workmen themselves are supposed to examine the place whilst at work? A Oh, yes.
- 2157 Q Look out for gas or smoke coal, or anything like that? A Yes. I always trust to inspect for anything like that.
- 2158 Q Well, if it has been examined in that way day after day for a whole month by the deputies, do you see any reason for the deputies again making a special examination at the end of the month for gas? A Well, sometimes there are three or four men together going round, the bosses and all the lot, they might have something up that the other men would not be looking to think about.
- 2159 Q What would they hunt up in the way of gas? A The deputies could not find it, and the power in the place could not find it what would you expect the deputies to find? A Not in the working place.
- 2160 Q You do not think there should be any examination of the working places? A No, not if they are examined in the morning.
- 2161 Q Now we come to the main workings—you think there should be a special inspection of the main workings once a month? A Yes, I think that.
- 2162 Q Do you know that is done now, in Kamble, at all events? A I do not know whether it is done now or not. I cannot say any more about that.
- 2163 Q And if the master has reason to think that matters are not going quite straight, he can always get the check inspection to go down, run to see, on behalf of the body of men? A I do not know whether he can always get them. He can get them only so often.
- 2164 Q You know you have the right to send them round, if you like? A Yes.
- 2165 Q I suppose you will about that you have got some competent men at Mount Kamble Mine, who are fit to act as check inspectors? A I could not say there were many.
- 2166 Q You will do you know, even in Kamble itself? A Oh, you would find two right enough.
- 2167 Q You could find one fairly competent man in Kamble to act as check inspectors? A Oh, yes.
- 2168 Q And you could easily pick out other competent men from other parts of the district? A Yes.
- 2169 Q And, if they do their work properly, it ought to be a proper check on any carelessness on the part of the Managers? A It ought to be. That is what we send them round for.
- 2170 Q And, as a practical man, you know what gas is present by the cap on your safety lamp? A I have found it put over like that.
- 2171 Q And you know it? A I have found it not once like that. Yes, I have that was gas then time.
- 2172 Q That is the collar safety lamp, what did you see, the Davy? A When I found the gas? I thought you meant when it is up.
- 2173 Q That was the safety lamp? A Yes.
- 2174 Q I am talking about the safety lamp? A I would see the Davy rather than anything.
- 2175 Q And you know that on the Davy lamp a stop appears on the flame? A Yes.
- 2176 Q And that has always been maintained by powder candles as a good enough guide for the presence of gas? A Oh, yes, it is a good guide. I would trust myself sometimes with one of them.
- 2177 Q There would you be satisfied if you had competent check inspectors, and they were sent with the safety lamp to look for gas? A Yes, certainly. I would not help it. It is not helped the men I think is satisfied. But, of course, the more inspecting the better. You cannot inspect too much.
- 2178 Q But there is such a thing as money? A And there is like there, too. I consider myself as well as money.
- 2179 Q You would trust your own fellow-men, your check inspectors, to look after your life? A Yes, if I needed them.
- 2180 Q Yes, it was the right to choose the men yourself? A I have a say in it.
- 2181 Q In regard to the shafts, you say that you would have about 30 yards apart in England, unless the coal was bad? A Yes.
- 2182 Q Did you not always say that the bigger the pillar was a bad roof the safer? A Yes. Where there is a rotten roof it will not do to work with too small pillars.
- 2183 Q Do you know what the size of pillars is in England? A They vary different ways, according to the strength of the roof.
- 2184 Q Give a place with a big over archhead? A A strong roof?
- 2185 Q Yes, with a weak roof, do you know what was the pillars run to there? A I have been in places where the butt run is only 14 feet wide.
- 2186 Q And what would be the size of the pillars? A About 22 yards square. I could not say exactly.
- 2187 Q And then 14 feet space again, and 22 yards pillar again? A Yes. That is only where there is a bad roof.
- 2188 Q And, the deeper you are, the wider the pillars ought to be? A Yes.
- 2189 Q The deeper you are below the surface? A Yes, the stronger you get the roof.
- 2190 Q Is it not a fact that the deeper you are from the surface the bigger your pillars ought to be? A Yes, and you can take a wider drift in the shaller stuff.
- 2191 Q You would drive the pillars wider instead of being 14 feet you could take them, perhaps 8 or 9 yards wide, if you had a strong roof.
- 2192 Q I want to get the general question settled first of all. As a practical man, will you say that the deeper you are below the surface the bigger your pillars ought to be? A Yes. I would say that. My real meaning is, with small pillars you get better or worse. Smaller pillars, better ventilation.

1218. Q. Do you recommend to a practical man small pillars in a big mine? A. Yes. There are a lot of different ways of pillarage.

1219. Q. Would you recommend to a practical man small pillars in a big mine? A. Not too small.

1220. Q. You have to sacrifice some of your ventilation in a deep mine for the safety of your roof? A.

Yes.

1221. Q. Now, with regard to the matter, is it not your idea in a gaseous mine that, when the pillar roof is taken out and the timber is driven, the roof is supposed to fall down and close up? A. It is supposed to close badly as I know it.

1222. Q. To close up tight? A. Yes.

1223. Q. And it is not the idea that in that way you make it at post of the mine more solid? A. It will get solid after a time.

1224. Q. And it helps the other part of the mine too? A. Oh, it helps the pillars and keeps the weight

1225. Q. Now, with regard to the furnace, you said that if an explosion had taken place over the shaft it would have pulled up the shaft? A. It should do so.

1226. Q. What did you say then, that it would work the shaft? A. It would not help it.

1227. Q. How do you mean? A. It would shake the timber and brack that would be there out of their places.

1228. Q. And still the shaft might up? A. I do not know that it would still right up, but it would move or less back it.

1229. Q. It would move or less back for the shaft? A. It would break the furnace.

1230. Q. It would knock the air running up in the surface? It would shake the air current? A. There would be nothing to force it up there if the furnace was stopped.

1231. Q. If the shaft was blocked it would block the passage and stop the air getting up to the surface? A. Yes.

1232. Q. Is that what you mean by working? A. Yes.

1233. Q. And would not the same thing happen if you had a fan? A. It would for a time.

1234. Q. And where you put the shaft closed out and the passage clear again you would secure the ventilation? A. Yes, but where I have seen the fans they have often in some way or other

1235. Q. If there was an explosion there is the same trouble whether it is a furnace or a fan? A. If it is closed up.

1236. Q. Do you know of any mine yourself where the shaft has been worked like that and closed up? A. I know of one in Durham but it did not close it right up.

1237. Q. What was the circumstance there? A. It was a disaster.

1238. Q. I am talking of accidents? A. The explosion caused this.

1239. Q. I want to know if you know of a mine of an accident where it was worked by an explosion? A. That is my opinion.

1240. Q. That is what I want to get at. It is only theory? A. My experience shows me that I will get better air and more ventilation with a fan than with a furnace.

1241. Q. Do you want to say that a furnace is dangerous so that it is not so good as a fan? A. I do not say it is dangerous but it is not as good as a fan, because it is not so quiet.

1242. Q. Now, you said with regard to the first matter the construction of deposits and that Great, that relationship has caused these to be a big job? A. Because so.

1243. Q. Do you know at any of the disasters? A. No.

1244. Q. Do you know of any in this district? A. No.

1245. Q. Do you know of any in New South Wales? A. I have only worked in this district, New South

Wales.

1246. Q. You do not know? A. I have heard talk once may and another.

1247. Q. Do you know of one instance where it has been shown in that way? A. I do not know of one instance at present, but I know it would be a fair way to estimate.

1248. Q. You can't there is always that sort? A. Yes.

1249. Q. Now let us come to the question of the explosion—you think it began over here, somewhere near Trent and Bush's place? A. Yes.

1250. Q. Where you think the No. 1 mine started at all? A. I went along somewhere across the line that, to come round to this line like that.

1251. Q. Now, you know where the No. 1 mine is, where that goes the mine No. 1? A. Yes, I worked there two years.

1252. Q. When you are in the mine No. 1 tunnel, which of No. 2 Right say time after the explosion? A. Only that time when I came to the top.

1253. Q. Then you crossed into No. 2 Right? A. I came from the old No. 1 through Trent's Flat.

1254. Q. Along No. 4 Left travelling road, then opposite towards No. 2 and then a place? A. Yes.

1255. Q. And then you crossed into No. 2? A. Yes. I think I came down a little and then crossed.

1256. Q. Then you only just crossed No. 2 and then? A. Yes.

1257. Q. Then you were not down in No. 2 Right at all? A. No. I was not down there to this after some time.

1258. Q. You were not down in No. 2 Right at all? A. No. I was not in that place at all. I went round that rope road after.

1259. Q. Now, what do you think—you told us that walking down No. 2 Left travelling road you found the dust on the side of the props near the No. 1 road? A. Yes.

1260. Q. What direction do you think dust showed? A. It showed that the dust had come like running in as I was running up.

1261. Q. You think that the force of the explosion had come from No. 1 mine and into No. 2 Left towards Bush's Flat? A. My opinion was, when I was in it, that when the explosion occurred it gave a force like back towards the No.

1262. Q. Now, if you had about that at present—you were in the No. 4 travelling road, between Bush's Flat and No. 1 mine, that, that on the side of the props near No. 1 mine level? A. Yes, nearest the way.

1263. Q. Now, which way do you think that shows the explosion travelled? A. Well, of course it forced some dust that way towards the shaft.

Witness—C. Smith, 4 January, 1906.

2241. Q. You think that showed that the explosion travelled from No. 1 level towards the St. Louis's Flat? A. I do not know which way it travelled.

2242. Q. What do you think that shows about the direction in which the explosion travelled? You are not so sure as the props on the travelling road, the No. 1's, between No. 1 main level and St. Louis's Flat? A. Yes.

2243. Q. And you think the explosion travelled in that road? A. A part of the force.

2244. Q. A part of the explosion? A. Yes.

2245. Q. Where was it you think that travelled, from No. 1 towards St. Louis's Flat, or from St. Louis's Flat towards No. 1? A. Towards No. 1 the main force of it travelled, from what I can see of it.

2246. Q. What direction do you think that explosion was going when it put the dust on the side of the props nearest to No. 1? A. My opinion was that the explosion was coming towards No. 1 and heading.

2247. Q. Well after that we got to the 4th Left travelling road? A. Yes.

2248. Q. You told us that props had the dust on the opposite side to you as you were walking towards No. 1? A. Yes.

2249. Q. Now, how do you think the explosion travelled in that 4th Left—the way you were walking or in the opposite way to what you were walking? A. Of course the force of it came towards me—towards it rather.

2250. Q. And it put the dust on the props on the side it came from? A. Yes, on the side it came from.

2251. Q. Did you make any attempt to trace this—to trace the route of the explosion? A. No, I was not allowed.

2252. Q. I want to know did you? A. I did not. I was only taken round with the deputy.

2253. Q. And you say that to that 4th Left travelling road was there there had been there? A. The 4th Left? I was not there.

2254. Q. You have been talking us about it? A. The 5th Left—the 4th Left—I know now.

2255. Q. Do you say there had been flames coming down that road? A. I do not think there would be much flame. It was like a concussion.

2256. Q. Do you think there had been any flame? A. I do not think there had been any flame where I first noticed the dust.

2257. Q. Do you think there had been any flame in the No. 1's Left travelling road? A. Yes, towards the main heading there had.

2258. Q. You did not examine the dust, did you? A. I did not examine the dust. I could not see a sort of grey-looking dust.

2259. Q. Did you see the appearance as if the dust had been blown by wind in No. 1's Left travelling road? A. Yes, a sort of blow by wind, of course.

2260. Q. It was more like wind, then, blowing clear? A. I know it must have been carried by what by the way it was blown on the props.

2261. Q. You know the kind of you get on the beam of your eye if you get a heavy pressure of air on them? A. Yes.

2262. Q. Was that the kind of feeling you had on the first? A. No, it was more of a shaking sound. It seemed a ripple on the beam of the eye, and it seemed like a concussion with the pressure.

2263. Q. Did you hear any sound? A. I heard a sound. First was the first I noticed of it.

2264. You say you were in the first and I explained before, that the first was, where your effort was taken off your back. Was any with you at the time? A. My brother.

2265. Q. Was he the cause of the explosion? A. No, another man first was working with us.

2266. Q. Is the same place? A. He was not directly in the same place. We were just having timber then, having only, as we call it.

2267. Q. What did the men do? A. We were working with the raised lights. After we had our timber we went back to work this hole in the creek, and as soon as he got near the place it lit up and went over to the main floor, and it came back then as the men read and took my shirt off as it came back.

2268. Q. How far did it travel? A. About 50 yards up and came back.

2269. Q. That was more like what happened to you in your head at the time last year than like the explosion on July 3rd? A. Of course, so that 40 there was not half so much of it.

2270. Q. It did not travel all over the mine and wreck the same like this thing in July? A. No, it knocked two or three trees down, and two or three stoppings and that like, and went out to the back heading, and it stopped there, there was too much air for it there.

2271. Q. And the second explosion, was that the same kind of thing? A. Yes. There were six or seven men between the second time and two of them died.

2272. Q. But there was no report? A. Yes, yes, a certain amount of report of course, like an explosion, like an explosion of powder, only more louder and shriller and stronger.

2273. Q. I say that it was like an explosion of powder? A. Only shriller like.

2274. Q. You mean louder? A. Stronger.

2275. Q. You mean it is an explosion like that one that took place in Kentucky? A. I never felt one as strong as that was.

2276. Q. Now coming to these times when you say you saw gas, do I understand the position to be this, that if the lantern had been arranged properly the air current would have carried away what gas there was? A. I think that it would have caught it.

2277. Q. If the current had been properly arranged, if the lantern had been put in the right place? A. Yes, there are plenty of air if it had been closed round the place.

2278. Q. Plenty of air to blow away the gas if the lantern had been arranged properly? A. Yes.

2279. Q. Your complaint was with regard to the lantern not being properly arranged? A. Yes.

2280. Q. That applies to both these accidents? A. Just in the same place.

2281. Q. In No. 1's? A. Yes.

2282. Q. Are you not always exposed to such a great way all the smoke from away after what before you go back to the place? A. I have not seen any States or Regulations.

2283. Q. Now, mind about Kaler, is not that your experience? A. My experience is not to go back too soon if I know the it was with the smoke.

- 2251 Q Is not your experience that you want some time to go back? A If you had time. If you wanted to go back to fill a ship you would, but if you had full ships you would want to do it.
- 2252 Q Is back there once there had been a new fire started up in the ship? A Yes.
- 2253 Q How much coal was brought down by the shot? A I suppose about 7 or 8 tons.
- 2254 Q Now, let us come to those shots fired by Forester—did you worked with safety-lamps in England? A Yes.
- 2255 Q Were they more you worked in? A Yes.
- 2256 Q Would you call them very gray? A The coal I worked it was very gray, in the country of Durham, a most dried Washington Colliery.
- 2257 Q I want to know was gas always there? A Oh, yes, there was always safety-lamps there all through that mine.
- 2258 Q Could you always find gas every day? A We always used to keep everything looked.
- 2259 Q Could you find gas any day with the safety-lamp? A In some parts of the mine you could.
- 2260 Q In conversation with the gas current? A Yes, if there were any little pot-holes in the roof there would be gas in.
- 2261 Q Now, how old was the head that you were working at, No. 60, the other day when the shot was fired? A No. 65?
- 2262 Q How long had you broken into that place? A I just came to it on the Monday. That was the first day. It had not been working very long before, not long, I know.
- 2263 Q Then the first, even on the third day, was only about three days' work? A They had been working at it before on.
- 2264 Q I want to know how far the head was in? A I can tell you exactly, because Day measured it the day I was there.
- 2265 Q Tell us then? A About 15 yards in.
- 2266 Q The men had been working, I suppose, something about a mile over a month, would that not be so? A I do not know how long the men had been working before as I was strange when I came, and started there.
- 2267 Q These had not been very much driven in the head, beyond just the ship coming in, and taking the coal out? A That is all.
- 2268 Q I suppose you do not know whether gas had been feared, whether there had been any sign of gas or not in that head on the examination before work commenced? A I always looked for gas all before I went in.
- 2269 Q Did you find any gas? A No.
- 2270 Q As far as you know it was perfectly free of gas? A Yes.
- 2271 Q And it has been all along? A Since I have been in it.
- 2272 Q Do you know this, that any part of the mine that is really dusty is heavily watered during the night? A You know that is a fact nowadays? A Times of our place I worked in, it was done on our night. They put a ship of water in. Still it did not need it.
- 2273 Q They only water when it is wanted? A It was a dry place just started, and it was never needed afterwards.
- 2274 Q That is since you began work after the accident? A Yes.
- 2275 Q Mr. Davis? Q That is the place you are in now? A No. I worked three months in that one that I am speaking of, about the same. It was a pillar.
- 2276 Q Mr. Davis? Q Now, you talk about a few blazes at times—do you know where those fires were lit? A Yes, in the same place I am speaking about the watering.
- 2277 Q What were they lit with? A With a wire.
- 2278 Q It was the wire that made the blaze, not a naked light? A It was a naked light after it blazed.
- 2279 Q But it was lit with a wire? A Yes, but still they do not blow every time.
- Cross-examination by Mr. Bruce Smith.
- 2280 Q Where were you working when this watering was carried on? A In the dock section.
- 2281 Q That was after the accident? A Yes.
- 2282 Q Had it ever been watered before? A I could not tell you.
- 2283 Q To your knowledge? A It had not been until we started.
- 2284 Q But after the accident you saw it watered? A I saw water in my place.
- 2285 Q Was it watered with one of those tank ships and a spray? A I infer so how it was watered, I found the water in next morning.
- 2286 Q You said just now "One ship of water"? A That is what I estimated. I saw it lying across the place.
- 2287 Q Before that was done was the dust lying about there? A Yes, a little dust before that.
- 2288 Q You considered it slightly dusty before? A Yes.
- 2289 Q And what was the effect of this watering? A It settled the dust.
- 2290 Q I mean to your knowledge? A It had not been until we started.
- 2291 Q Did you think that it was done so often? A It was done in the night.
- 2292 Q How long were you in the place after that before this accident took place? A I was in there three months after that—well, between weeks.
- 2293 Q It was after the accident and after the watering? A Yes.
- 2294 Q Was it watered again after that? A I never saw any water in after that.
- 2295 Q Do you mean to say that the dampness produced by the air watering was sufficient to keep the dust down? If it was not watered again for twelve weeks did it get dusty again? A No. The coal was naturally damp when we got working it.
- 2296 Q Then how did it become dusty? A It had been standing idle for six, or eight, or ten, weeks.
- 2297 Q It had been standing for some time, and the watering was done before you began again? A We waited for one day, and then the watering was done the next night.
- 2298 Q And after that it did not get dusty? A It was naturally damp.
- 2299 Q You have spoken of the danger, in case of explosion, in the spring? A Yes.
- 2300 Q Will you tell the Commission what greater danger there is in the spring where there is a fire in use than where a fire is used? A I could not tell you.

2203. Q. You see you have undertaken to tell the Commission here that you think a change ought to be made in the Mount Kemble Mine by substituting a fan for a fire, and the only reason you give for it is that if there were an accident near the shaft it might bring down the walls of the shaft and stop the work in the mine? A. Yes.

2204. Q. Now, I want you to tell the Commission what would prevent that from happening if there were a fan on the top instead of a fire on the bottom? A. I was not meaning in that way at all. I was meaning the regulating the air by the fan preventing an explosion. That is what I was trying to get at.

2205. Q. I know you speak of the irregularity, but I want to point that out for the present. Are you in a position to where the Commission that there would be any less danger of the shaft from an explosion where there was a fan than where there was a fire? A. I could not say that.

2206. Q. Then your only reason is what you call the irregularity of the fan? A. Yes, that is my only reason.

2207. Q. As a practical man? A. Yes.

2208. Q. Have you had any reason in Mount Kemble Mine, as a practical man, to find fault with the regularity of the fan? A. Yes.

2209. Q. Have you complained in any way? A. I have complained in the dignity.

2210. Q. What dignity? A. In the different cases at the time in the different sections I have been in.

2211. Q. What have you complained? A. Tell him it was very dull to say, and then sort of thing.

2212. Q. And you have been in mine with a fan? A. Yes.

2213. Q. And you have never had to complain in that way? A. Yes.

2214. Q. So far as you know, except that there is a little more regularity where a fan is used than where a fire is?

2215. Q. That is your only reason? A. Yes.

2216. Q. I want to get at the bottom of your knowledge. You know nothing with reference to the greater danger of the breaking down of the shaft, and you say that even with the fan the shaft may

work more regular? A. No.

2217. Q. How you the slightest idea what it would be to change a mine like the Mount Kemble from a fire to a fan? A. It would cost a good bit at Mount Kemble.

2218. Q. That is rather vague, a good bit? A. I could not tell.

2219. Q. You have never considered that? A. I will tell you what I have considered. I know that there is an engine on the top of the shaft now, and I know it would be very handy for the job.

2220. Q. Do you know whether it would cost \$100 or \$150? A. I think it would not cost \$1,000.

2221. Q. That is the extent of your knowledge? A. I do not go to estimate the cost of it.

2222. Q. You have told us about this that that was fixed, was that place faulty as the men you went to last summer where they worked? A. Which one do you mean?

2223. Q. The shaft that was fixed in the way that you disappeared, by the opening of the safety lamp? A. That is the answer.

2224. Q. You told us that was a little faulty? A. Yes.

2225. Q. Was that as faulty as the place you went to last summer where they worked? A. No, not quite so faulty.

2226. Q. What do you consider the most faulty part of that mine, with all your experience of it? A. I have not been all over it.

2227. Q. I know that. What is the most faulty part of it? A. The 5th Right.

2228. Q. That is the 5th Right of No. 1? A. Oh No, I mean tunnel.

2229. Q. What about the 4th Left? A. It was always damp enough that way.

2230. Q. In these two different in the amount of dust in the amount of the answer and in the water? A. Oh, I quite think that the air coming from the day-drift is damper air.

2231. Q. I am not talking now of that air, but of your worked experience in the mine. Is there any difference in the amount of dust in that mine in the answer and in the water? A. It is always dry and dusty in the answer.

2232. Q. How is in the present condition of dustiness compare with what it was, say four months ago? A. I have not been working in the mine part where it was dusty more the explosion time.

2233. Q. Where you were my part lately that you was four months ago? A. No. I have not been in that day-drift mine.

2234. Q. And you cannot speak generally as to whether what expense you now would be a fair sample of what it was four months ago before the explosion? A. I know the mine part where I was that dust is not working yet, not much of it.

2235. Q. You cannot compare now any part with what it was before the explosion? A. No. I have not been in that part now.

2236. Q. Now, you speak of the time of the explosion, about telling somebody that the wheel was broken in the mine. Have you your words? A. I cannot say that to me.

2237. Q. Did you find out afterwards what he was referring to—the horse or the man? A. I like whether was blown up the road.

2238. Q. Was he referring to the horse or the man? A. The man.

2239. Q. Did you find out afterwards when he was blown? A. I found him then.

2240. Q. Was he lying down? A. Yes, but he had had hold of him.

2241. Q. I want you to tell me where he was, and in what direction he was blown? A. He was in 50 feet.

2242. Q. You know the south end north—was he blown down south or north? A. He was blown up these levels up 60 feet.

2243. Q. Really blown up towards the working? A. Yes.

2244. Q. What was his name? A. Oh! His name.

2245. Q. He will be now? A. Yes. He has just agreed to work here again.

2246. Q. Did you talk to him afterwards? A. After I got him through the broken, where there was no more air.

2247. Q. What did he tell you? A. He said—"My horse is lying down there."

2248. Q. Did you mind and see the horse? A. I did. "No, don't mind your horse."

2249. Q. Do you know where the horse was blown? A. Only about under the props.

2250. Q. Was he blown in the same direction? A. The same direction, where.

2251. Q. Now in describing the explosion you said it went one way and another, and you would you see the last (singing)—what do you mean by that? A. My meaning is it was like a shot going off.

2103. Q. Is that something you saw or something you imagined? A. I know the smoke was up, and dust up, over where Cliff Harrison was.

2104. Q. I want to know what you saw to enable you to say it went that way and that way (indicating)? A. That was the time I went up those other lumps. It went in different ways. But you know me in 2105?

2105. Q. That was on the day of the explosion? A. Yes.

2106. Q. You said it went one way and another, and you did this (sawing his arm), what did you mean by that,—did you have experience of its going in different ways? A. Yes; it was— (Interposed.)

2107. Q. What were you referring to when you said that; what part of the mine were you referring to? A. To the old Right.

2108. Q. Near that level? A. No.

2109. Q. You were not speaking of the shaft district? A. No.

2110. Q. Now I want you to tell the Commission you saw it is a rather significant and suggestive disclosure to get round the proposition that is an opinion of it.

2111. Q. Did you form the own opinion that the lumps went in different directions? A. It would do.

2112. Q. That is theory,—but I want to know what it did do in your experience? A. In my experience it opened all round the pipe, because it was all round the pipe.

2113. In some places you found it on one side only, and in others all round? A. As you come to get up there I found it all round.

2114. Q. I do not know whether you formed the opinion that it was simply an explosion from one centre or whether there was a series of explosions? A. I have not noticed the men. I only hit them.

2115. Q. Have you had any experience of coal dust explosion,—do you know anything about them themselves? A. No. I never read anything.

2116. Q. Now, will you tell me which you consider more dangerous, lighting a fuse at the naked flame of a lamp by opening the lamp, or firing a shot with gunpowder? A. The gunpowder will explode gas from my experience.

2117. Q. Which, in your experience, is more dangerous, firing a shot of gunpowder where there is gas, or opening a lamp where there is gas? A. Opening a lamp would be dangerous.

2118. Q. Which is more dangerous in your opinion? A. I say the naked light is dangerous.

2119. Q. The naked light in your opinion is more dangerous than firing a shot with gunpowder? A. In my opinion.

2120. Q. You did not object to firing a charge of gunpowder? A. No. You work powder in the hole will explode the gas if there is any there. I would like to hold the charge myself.

2121. Q. You told Mr. Wade that you did not know of any case in the district in which either a relative or a friend had been put into a responsible position? A. No, since the talk I have heard.

2122. Q. You said you had seen the candle snuffed at home? A. Yes.

2123. Q. In what mine had you seen them snuffed? A. I had seen them in the Dudley Colliery where I was working.

2124. Q. How many years ago? A. Twenty-five years ago.

2125. Q. You tell the Commission that twenty-five years ago it was the practice in the Dudley Mine, in England, to snuff the candles? A. Yes.

2126. Q. How were they snuffed then? A. They used to be snuffed with tapers, iron tapers.

2127. Q. May I ask? A. Yes, on the right side always.

2128. Q. You know men there used. How did they snuff—with a hose or spray? A. They used to have an old rope coil let it out over.

2129. Q. Just on the ground? A. Yes.

2130. Q. But no spray on the sides or the roof? A. No, only just to keep the dust down on the haulage road as we call it.

2131. Q. And that was regularly done there? A. Yes, if it got too dry.

2132. Q. Now, was the Dudley a mine down near the Mount Kemble? A. Yes, in part.

2133. Q. And was duty in parts? A. Yes.

2134. Q. And more in parts? A. Yes.

2135. Q. On the whole, was it as duty as Mount Kemble? A. Well, I believe that Mount Kemble is more duty.

2136. Q. And how long were you in the Dudley? A. Two years. I went there as a boy.

2137. Q. And that system of snuffing the mine was carried out the whole five years you were there? A. I'm for snuffing it know. I was not always there to see.

2138. Q. As far as you know it was a regular system twenty-five years ago? A. Yes.

Re-examination by Mr. Lyngby.—

2139. Q. Do you know whether a special payment was made for the snuffing at Dudley Mine?

(Mr. Wade objected.)

2140. Mr. Lyngby: I want to show that it was not snuffing done by a contractor for getting out material, as it is in the evidence that it was done at Mount Kemble.

2141. Mr. Wade: That is not in the evidence.

Re-examination by His Honor.—

2142. Q. When you speak of a pipe, just explain how the pipe was used? A. The pipe was on the tank, put on the pipe or air, and it was let run to dry on along the road.

2143. Q. Was the pipe put from side to side? A. It was in the centre between the two rails.

2144. Q. Was there anything to distribute the water over the face of the road, or did it only run down the centre of the road? A. Just down the centre, and let it run as it would, like.

Re-examination by Mr. Deane Smith.—

2145. Q. Was it really a case of getting rid of the water? A. No, to keep the dust down and keep the road sound—to keep the air free road.

2146. Q. Do you know five years before this explosion it was customary to get rid of water in the Mount Kemble Mine from some place where there was a great accumulation, by taking it in and letting it off along the road way of a tank, turning a tap on? A. Yes, I know that.

2147. Q. Do you remember that was done to lay the dust? A. Not altogether, to get rid of the water.

Witness—P. Smith & Son, 1884.

2428 Q. From your experience in Dudley, was it done for the same purpose? A. No.

2429 Q. Had you any superabundance of water in the Dudley Colliery? A. Oh, any amount of water.

2430 Q. Were these rails used to carry the water away in places where the water was in the way of the line? A. In these places it was a species of the rails were used specially to water the way.

2431 Q. How do you know that? A. Because the last was lying along on the engine platform, we call it, leading by ropes.

Re-examination by Mr. Lytton—

2432 Q. While you were working on the 5th Night, which you say was dusty, was any part of it ever washed before the disaster? A. I never saw any.

2433 Q. Now, you spoke about this, that at times the air was slack, and you complained to the deputy, was you necessarily any time shortly before the disaster complaining about the air being slack, and, if so, when could that have been to exactly as you say, before the 20th July, as to any complaint you made concerning the air being slack and your saying for better air? A. I never did the last two quarters before the explosion, because I was on the 5th Night getting the first air slack.

Re-examination by Mr. Robertson—

2434 Q. At the Dudley Colliery you are referring to, what was the system of haulage, main and tail? A. Yes.

2435 Q. And, of course, the speed of the main and tail rope is very great? A. It is not.

2436 Q. And it is necessary to keep a very good road? A. It is.

2437 Q. And without the waterworks would it have been possible to keep a good road? A. That is what I know, it was to keep the road solid.

2438 Q. And with the main and tail rope system, owing to the great speed more dust is produced? A. Oh, yes, certainly.

2439 Q. And what is the system at Mount Kemble? A. It is the ordinary rope here.

2440 Q. A very slow speed? A. Yes.

2441 Q. Is dust so produced? A. It could not lift the dust. There would be very little dust blown by the wind at Mount Kemble. It would be very light (dust) if it did.

2442 Q. Does it produce much dust? A. No.

2443 Q. It is a very slow speed? A. Yes, about a mile or 2 miles an hour.

2444 Q. In respect of the necessity for keeping a good road, do you think the roads at Dudley should have been visited? A. I do not think they would, or much.

2445 Q. It was a matter of keeping a good road? A. Yes.

2446 Q. Do you know whether this spontaneous system was in force at any other colliery at that time? A. I never heard of it.

2447 Q. In your examination of the workings some time after the explosion, you speak of being fined out? A. Yes.

2448 Q. Were not you mistaken? Was not that fine dust? A. That is what it seemed to me.

2449 Q. You know the difference between dust and coal? A. It is not different dust from what I had seen at Mount Kemble. Much better.

2450 Q. It was not the dust you got from a shewer? It did not stick to your fingers? A. No. It was a very gray dust. I noticed it was a coal dust from Mount Kemble.

2451 Q. In the place you have referred to, where coal shots were fired by Forepicks, was there any gas there? A. No.

2452 Q. What was the explosion used? A. Powder.

2453 Q. Gunpowder? A. Yes.

2454 Q. You said something about meshels. You are aware, of course, that there are hundreds of meshels very much larger than the ordinary experiments? A. Yes, there are some larger. Yes, a bag or with a stopping put in is a meshel.

2455 Q. As a matter of fact, the majority of the meshels are very large? A. Yes, I fancy they are. I never took much notice.

Re-examination by Mr. Hester—

2456 Q. That day you speak of when you said—did you notice anything as to its smell? A. Yes.

2457 Q. What did you notice as to the smell? A. I could not tell what sort of a smell it is like. The smell made me quite to-day put the mine.

2458 Q. Yes, but when you judged it to be coal, when you asked it next, did you get the smell of it as in the trial of it? A. Be the fact—all the places smelling the same on that day.

2459 Q. And it was different from what you saw before? A. It was different dust.

[At this stage Mr. W. B. Pratt attended to take shorthand notes of the evidence and proceedings.]

Examined by Mr. Hester—

2460 Q. How did you fire the shot? A. He fired the shot where the shot was to be fired. He put his lamp up to the point and brought it back again.

2461 Q. What did you notice as to the shot? A. I could not tell what sort of a shot it is like. The shot made me quite to-day put the mine.

2462 Q. Yes, but when you judged it to be coal, when you asked it next, did you get the smell of it as in the trial of it? A. Be the fact—all the places smelling the same on that day.

2463 Q. And it was different from what you saw before? A. It was different dust.

[At this stage Mr. W. B. Pratt attended to take shorthand notes of the evidence and proceedings.]

Examined by Mr. Hester—

2464 Q. How did you fire the shot? A. He fired the shot where the shot was to be fired. He put his lamp up to the point and brought it back again.

2465 Q. What did you notice as to the shot? A. I could not tell what sort of a shot it is like. The shot made me quite to-day put the mine.

2466 Q. Yes, but when you judged it to be coal, when you asked it next, did you get the smell of it as in the trial of it? A. Be the fact—all the places smelling the same on that day.

2467 Q. And it was different from what you saw before? A. It was different dust.

[At this stage Mr. W. B. Pratt attended to take shorthand notes of the evidence and proceedings.]

Examined by Mr. Hester—

2468 Q. How did you fire the shot? A. He fired the shot where the shot was to be fired. He put his lamp up to the point and brought it back again.

2469 Q. What did you notice as to the shot? A. I could not tell what sort of a shot it is like. The shot made me quite to-day put the mine.

2470 Q. Yes, but when you judged it to be coal, when you asked it next, did you get the smell of it as in the trial of it? A. Be the fact—all the places smelling the same on that day.

2471 Q. And it was different from what you saw before? A. It was different dust.

whether the witnesses have taken into consideration the question of expense in connection with that of the danger.

1471 Mr. Ebbels: Q. Do you think it practicable to have the power at Mount Kemble? A. Yes, I think it is, because the use is so irregular because of the wind.

1472 Mr. Ebbels Smith: My idea of the motor just referred to is in this, that it is a question of the adoption of otherwise of improved machinery. The question was raised in connection with a spark arrester being attached to a train. They had a spark arrester, but the question was raised whether or not they ought to have the best spark arrester; and it was pointed out that to have the best spark arrester always attached to trains would mean constant expenditures, because of the constant improvements that are made in arrester.

It continued by Mr. Ebbels:—

1473 Q. Upon what do you base your statement with reference to the photo that was sent? A. I said that I thought the lamp was in the roof, and put it a few feet above where the shot would be let off; that is, that the shot would be 2 feet below the roof.

1474 Q. What sort of lamp was it? A. It was a Glens, or some kind of a safety lamp like that.

Mr. FRANK McDONALD was sworn and examined as under:—

Examination—each by Mr. Ebbels:—

1475 Q. What is your name? A. Frank McDonald.

1476 Q. What are you? A. I am a miner, working at Mount Kemble Colliery.

1477 Q. How long have you been there? A. About twenty-seven years.

1478 Q. Were you worked in other mines besides? A. Yes.

1479 Q. Are you a member of the Deputation Board of the Mines? A. Yes.

1480 Q. Did you attend a meeting when certain recommendations were made, to be submitted to the Commission? A. Yes.

1481 Q. Were you one of the persons who went to the Kemble Mine after the explosion? A. I went there, but did not go inside. I was simply making myself out to get the work out.

1482 Q. Do you know anything with regard to the number of safety lamps available when you got there? A. There were no safety lamps there, and there were no — (interrupted).

1483 Q. Do you know whether there was any difficulty experienced in getting lamps? A. Yes, there was a great deal of difficulty experienced in getting lamps. They had to wait about the cost for three or four to get into the mine. In fact, there was a great deal of delay on account of their not being in good shape.

1484 Q. Is your opinion, that that delay operates as a factor in preventing men's lives from being saved? A. Of course, they could have got in much quicker if there had been lamps there.

1485 Q. Do you have to go into the Mount Kemble Mine to make an inspection? A. No.

1486 Q. Does your knowledge of the case from your own knowledge? A. No.

1487 Q. Now, with regard to these recommendations: The first is that Managers, undermanagers, deputies, and shot-fires, should hold certificates of competency by examination, and that they should have five years' practical mining experience before being eligible for that position. I want you to say if you can suggest that recommendation, and if so, what are your reasons? A. Of course, the man who takes the position of Manager should be one of the most competent men in the State, and the undermanagers should know where there is danger, the state of the Manager should, and the deputy and the shot-fire ought to have the same thing. A shot-fire should know whether there is any gas in a mine before he allows a shot to be fired, and a deputy should know at other times to go there before he allows the men to go into the place.

1488 Q. Do you know whether there are at present in this district persons who have qualified themselves for certificates by examination who are not employed in any of these respective positions? I mean working miners who have qualified themselves for such positions by examination? A. I know there are several, but I cannot name them just now.

1489 Q. Do you know who examined those persons? A. They are examined by a Commission of three persons. I do not know what it is called a Commission.

1490 Q. They have to pass to be deputies? A. Yes, before in Newcastle.

1491 Q. Are there a number of working miners who have submitted themselves to these examinations and obtained Certificates of Competency? A. Yes.

1492 Q. Would the examination which these persons have passed be sufficient? — (This repeated).

1493 Mr. Ebbels: How can a working man, having nothing about these examinations?

1494 Mr. Ebbels: It is difficult, unless he has been there.

1495 Mr. Ebbels: Q. Have you worked for me? A. No.

1496 Q. Do you know the usage of them? A. No.

1497 Q. Do not know what Certificates are issued by the Board? A. I know by seeing it in the Press that Certificates of Competency are issued for the positions.

1498 Q. What positions? A. Managers, undermanagers, deputies.

1499 Q. I do not think that north-western, would be present for deputies? A. I think deputies, too.

1500 Q. Would the last of these persons having to submit themselves to examination during my hearing, or do you think it would be with a view to obtaining permits in this district who are qualified for these positions by examination? A. I know where.

1501 Mr. Ebbels: With regard to Managers and undermanagers I think the question is beyond argument, and the Act requires. We say that a man should have some practical knowledge and some

adequate knowledge to help him, but the question is whether men like deputies and shot-fires should pass examinations.

1502 Mr. Ebbels: There are persons at present holding positions of Managers who have an education. The question is raised to whether a man of this kind is not still eligible to hold such a position.

1503 Mr. Ebbels: The question is then whether a man who has now held the position through service only should pass an examination to show he is competent to hold the position.

1504 Mr. Ebbels: If the Commission makes any more suggestions of might, allow such persons come before to qualify themselves as a work would be thought that they had some right to be in their service. We think that it is not fair to ask men to work under officials who have not certificates, it is on the ground of general safety that this recommendation is made.

2500. Q. Now, with regard to the recommendation that inspectors shall be vested with absolute power to order the use of safety lamps? A. I quite agree with that, because if a colliery is dangerous the men must be able to find out how the inspectors, and they should have absolute power to order the inspectors to do so.
2501. Q. Can you give of your own knowledge, any instance where it has been suggested that they should be vested with such power? A. Personally I do not know.
2502. Q. What do you say to the proposition that ventilation by furnace should be prohibited, and that fans should be substituted? A. I agree with that. The atmosphere has such a terrible effect upon a furnace, and in fact in some cases I have known it reverse the furnace, and instead of the air coming in to replace the return air goes out. In the furnace at Kears of a strong westerly wind is blowing, the wind will reverse down the shaft and send the air back, and the result will be the intake. I think that is a strong reason why fans should be put on, and surely at times the air is hanging in the intake, and is neither going one way or the other.
2503. Q. Have you still the furnace at Kears? A. Yes.
2504. Q. And still these conditions? A. It happens principally in the winter, when the wind comes from the west. It runs down over the hills, and comes into the furnace as I have said. They have got some system of blocking the wind, to reverse it, but the wind has a tendency to prevent the air coming down.
2505. Q. How often in the year has it happened at Kears that the air has been reversed in that way, to your knowledge? A. I cannot say.
2506. Q. Roughly? A. The westerly winds in these parts will blow about three days in succession. In the morning, if it was reversed, they would not get the air back again until the colliery was out running, it might be two or three days in that way.
2507. Q. Would you not the slope working? A. Yes, to send the furnace to reverse here.
2508. Q. In the instances where the mine does for air? A. You have got the west wind, although it may not be in the same way, but here the west wind, going round. The worst part is when the furnace is in the balance, and there is equal pressure at both ends.
2509. Q. Would the west wind come only contact with the fresh air? A. Yes, you have the smoke and foul air backing up to meet working face.
2510. Q. And you have any accumulation of gas that should go up the open shaft back to the mine? A. Yes.
2511. Q. Is that your own experience at Kears? A. Yes, when this particular wind is blowing.
2512. Q. Have you ever experienced about reversing the mine in the morning and during the night that when there was no movement stopping on the surface? It would be a case of using which would put the heat of it—the current or the furnace, and the air in the mine would be in the balance.
2513. Q. What would the men in the mine be doing for fresh air? A. There would not be much air travelling then, things would be very slowly.
2514. Q. Regarding your general experience at Kears, what sort of air have you had in a general rule? A. In some instances fairly good, and in other instances very indifferent. A good deal depends on the direction the air has to work.
2515. Q. In addition to what you have mentioned, are there any other reasons why a furnace is objectionable from a safety standpoint? A. Of course, a furnace might be put out by black damp or any accidents like that.
2516. Q. Do you know what a dumb drill is? A. To carry the return air over a furnace.
2517. Q. Does the air go straight over? A. I cannot say. The furnace has been repaired lately, but I cannot say whether the return air goes straight over, or whether there is a dumb drill.
2518. Q. How long ago is it since it was repaired? A. It has been repaired some little time, but I cannot say how long ago.

(The Court adjourned, at 1 p.m., and assembled again at 2 p.m.)

Adjournment.

[On resuming after lunch, at 2 p.m., Mr. W. B. Clark attended to take short-handled notes of the evidence and proceedings.]

Mr. FRANK McDONALD, previously sworn, was further examined by us as follows:—

2519. Mr. Spence. Q. We were speaking of the dumb drill—do you know whether there is one in the furnace at Kears? A. I do not know.
2520. Q. In addition to what you have told us as to the advantages of a fan, what disadvantages, if any, does the use of a furnace involve, so far as the safety of the mine is concerned? A. Happen in the winter in which the furnace is so situated, however, the mine as at North Kinsale, well, then, it would probably be destroyed, and that would cause great damage and disturb the regular air current.
2521. Q. And what would be the result following from that? A. There would probably be some damage done to the shaft in that case, and the result would be first so it would be going up the shaft, and the whole thing would be stopped, and the air would stand still in some back on the mine, and another thing.
2522. Q. Now, taking your mine at Kears, do you think it would be fairly practicable and fairly economical to have a fan placed there? A. Yes, quite practicable and economical too. Of course, I do not know much about it, but they would not require the coal for a furnace.
2523. Mr. Spence. A. I think it is better to have a fan than a furnace as far as it is—and there are men here who are, through reports in the matter—is quite as competent to deal with the question of the superiority of fans over furnaces as any man is. Of course, it is admitted that a fan is superior to a furnace, and the various physical reasons are obvious to anyone who knows anything about things, generally.
2524. Mr. Spence. I think just these questions with a view of showing whether those men considered the question of expense, or whether they made the use of recommendations only.
2525. Mr. Spence. Q. You have had a large number of witnesses who have said that these suggestions have been recommended, but we do not know by whom.
2526. Mr. Spence. Q. The recommendations which we have been speaking about, were they discussed by the members of the Delegation Board? A. Yes.
2527. Q. Were they unanimously adopted? A. Yes.

20134. Q. Some of them were suggested by the Judges and recommended to the Delgado Board? A. Yes.
20135. Q. Now, with regard to the proposal that waste workings shall be absolutely sealed off and surrounded by intake airways, such airways not to come in contact with the intake? A. I am thoroughly of opinion that the air from the waste workings should not go round the mine after it has gone round the waste workings.

20136. Q. It is impracticable to retulate large wastes, what would you do with them? A. Seal them off.

20137. Q. Now it is proposed that all places, except prospecting places, should have cut-throughs not more than 30 yards apart? A. I think that 30 yards is ample for enough to drive before you make a cut through, because you may have to go another 20 yards before you come to them.

20138. Q. By your words that cut-throughs within 30 yards of each other would weaken the roof in any way as it is made? A. No.

20139. Q. You say that as a practical matter? A. Yes. If there were 30 yards block of coal, or even 12 yards, the roof would not be weakened in any way.

20140. Q. And, when you had got one cut-through driven in 30 yards, what would you do with the one you had just passed? A. Simply break it up, or make it carry the air round to the next one.

20141. Q. Is there any leakage of air resulting from the breaking system? A. Yes there is. When you have got up in about 30 yards very often the air will not follow you, that is when it is not close—and it is hard to keep it close.

20142. Q. But you say whether it happens that the air very often does not reach the place where the mine is actually working the coal, so if it does, it is reduced, and only in small quantities? A. That is so. I would not say that the air never reaches the men, but there are plenty of places when it does not. The conditions are very often different.

20143. Q. Do you know anything about the proposition which should be made for the supply of 100 cubic feet of air for every man, boy, and horse, said to be found in and through the working places? A. Yes.

20144. Q. What do you say as to carrying this out in connection with the breaking system,—is that condition fulfilled? A. It is, in some places, but in other places it is not. As a matter of fact, you cannot tell, you cannot take 100 feet of air to the face; it would not require 100 feet unless you got it into a very small face.

20145. Q. What do you say as to the proposal to make an expedition with locked safety lamps in all cases,—how are the examinations made at Kew? A. I intend to be without expediency lamp, and then they go to try it with a locked safety lamp. They would often want it and try it on the roof. If there is any gas there, the only one who would suffer would be the man who tested it. They do not do it now.

20146. Q. There is a recommendation that certain examinations shall be made, and a report by the deputies and District Inspectors, the examination to be made with a hydrogen flame? A. The idea is that the ordinary safety-lamp will not find less than 1 per cent. of gas, but the hydrogen flame will find 1/2 per cent.,

20147. Q. What is said in the proposition that 100 cubic feet of air be provided for each horse instead of 100 feet as at present, what do you say to that? A. I think that is a fair thing. We take it for granted that a horse consumes more air than a human being does.

20148. Q. Then there is a recommendation that all doors shall be erected so as to close and remain closed of their own motion? A. Yes.

20149. Q. Now you say at Kew, which close of their own motion? A. Yes, there is no particular door behind them; but they are put on such a door that they will follow you back. All doors ought to be made so that they will close behind you.

20150. Q. Would you release any man or any person from closing a door if it was forced open? A. I would be very sorry to see men if they left a door open.

20151. Q. Now, with regard to double doors on the doors between main intakes and returns and main headings—do you think those necessary? A. Yes.

20152. Q. What about the weekly measurement of air in each section, and the report thereof being sent to the Inspector? A. It is a wise provision that some official should make a weekly inspection and report the same, so that we may know what quantity of air is breathing.

20153. Q. Where would you have the measurements taken? A. In the intake and in all the returns.

20154. Q. Do you mean in the intake and in each section? A. Yes.

20155. Q. There is a recommendation that breaking and loading roads, and other places necessary, be properly watered? A. I think in view of the report that coal-dust is a great source of danger, it is right and proper that these roads should be watered.

20156. Q. Are there any appliances at Kew? A. Only the ordinary tale.

20157. Q. Are there any dusty roads? A. They are not dusty just now, they have been attended to.

20158. Q. Is that only since the terrible disaster? A. In some cases before, and in some cases afterwards.

20159. Q. Have you any appliances for watering besides the tale, any hose or anything else? A. Not that I am aware of.

20160. Q. There is a proposal that Managers should be empowered to give away personal time and attention to the management of the colliery. What has been your experience concerning the Managers going underground? A. The Managers would not be there for a month at a time—that is, in my place. I have nothing about anyone else.

20161. Q. What is the average time you see the Manager in your place? A. Well, Mr. Jones has been there, at the mine, for twelve months or so, and I have seen him in my working place three or four times.

20162. Q. It is suggested that the managers should be enlarged? A. I say that they should be at least 4 feet wide. Some of them are very narrow. Every time that they make them see they are improving on that. They should be 6 feet high and 8 feet wide.

20163. Q. Do you know of any mine where they have been killed too much for an emergency? A. I have known, in your case back, times when we had to crash for for five men and one place.

20164. Q. There is a recommendation that construction should be given regularly to employees on the means of escape,—where what would you suggest? A. I would suggest a collision with gas, when there are easy ways out, that the system, now a week, or once a week, should go round and take the men out by those ways, so that if there is a coming in of gas, the men would have a good idea of the different ways out of the mine.

20165. Q. Would you interfere with the working of the colliery? A. No, I simply propose that the deputy should take you out when you are breaking off, to give you an opportunity of knowing your way out.

2084 Q Now I will read to you, with reference to the proposal that the Coal Mines Act should forbid a black list of employees, is, kept, a passage from p. 251 of Abell having reference to the necessity of an Act for the protection of distressed employees,—do you think that a provision like that would be of any value, and what would be the effect of it? A I think that a notion of such a description is very necessary.

2085 Q What effect would it have on the men, if they knew there was such a provision?

2086 A None.

2087 Aa Witness, the suggestion of a black list would be to crystallize the Common Law Law of procedure, and to give a criminal instead of a civil remedy.

2088 Q Suppose that such a provision were in existence it would conduce to the safety of the mine, because men would not be frightened to report the presence of gas, and so on.

2089 Aa Witness, it would, to a certain extent, secure miners who have cause of complaint, in making their complaint.

2090 Aa Witness, Q A recommendation, it made that safety lamps shall not be opened for shot firing?

A We use the open light at Kilm.

Cross-examined by Mr Wade —

2091 Q Do you consider all red dust a source of danger in a mine? A Well, I can not so report at that out of thing.

2092 Q Can you give me an answer? A No, I cannot.

2093 Q What part of the mine do you want warned? A The mine, I say it should be warned in houses, from evidence which has been tendered, and which appears in the Press every now and again, it is thought that red dust is dangerous, and, if this is the case, why should not the mine be warned?

2094 Q What, the part which is dangerous? A No, the whole of it, if it is dusty.

2095 Q Do you know whether all red dust is dangerous, or only dust in certain conditions? A I do not know.

2096 Q Was the question of whether all cold dust is dangerous discussed at the Delegates Meeting? A The matter came up, and the general view was that, if there was gas there, and also cold dust, if the gas ignited it would gather up the dust, and that would add to the explosion.

2097 Q Do you mean that it is only to be warned if there is gas in the mine? A We do not know whether there is gas in a mine or not.

2098 Q You do not? A No.

2099 Q How is that? A I cannot tell whether there is gas in a mine or not.

2100 Q Do you not think the circumstances by the deputy is a fair guide? A Yes.

2101 Q Do you not know you have a right to examine the report book in the morning? A Yes. But suppose they do not report a case of gas?

2102 Q Do you know of a single case of a deputy not reporting gas? A No.

2103 Aa Witness, there is evidence before the Commission that the deputies do not report it.

2104 Aa Witness, it is only a question of human fallibility, unless all

2105 Aa Witness, it would be a gross criminal act on the part of a deputy if he found gas and did not report it.

2106 Aa Witness, there is the question of deputy which comes in. It has been decided that the question of deputy has come in. An intentional case of gas has not been reported. But with to one time would be an intentional warning of gas in another mine, who would be an appreciable quantity.

2107 Aa Witness, Q You say that you have only seen Mr. Jones, the present Manager, four times in twelve months? A That is to my working place.

2108 Q Now, the mine is working two hours every day, and out of that two hours, you are only in eight hours, or perhaps less? A More.

2109 Q Are you at your working place more than eight hours? A Yes.

2110 Q How long are you at your working place? A I suppose about nine hours.

2111 Q Have you a foot and lamp with at Mount Kilm? A No.

2112 Q Do you mean to say that both men go in and come out together at Mount Kilm? A Yes.

2113 Q They do? A Yes.

2114 Q Do you see the under manager at any time during the year at your place? A Of course.

2115 Q And the deputy, do you see him daily? A Yes, twice a day.

2116 Q Now, with regard to red dust, do you say that because it is not a sufficient appliance to provide a working lamp by itself? A When you get a certain degree in — [interrupted]

2117 Q Oh, yes, you say that after you get 50 p.p.m. it is not sufficient? A In some cases, in all events, say that a place is being driven, above there is not much ventilation—for instance, say so. No. 4,—and it is a long way in, where you get on, not the main heading, but the back heading, and you have less than three, the air comes along the cut-through, and up and down to the next heading. In a little time the air ceases, and will not follow any further, and perhaps you have another 10 or 20 yards to go on working in.

2118 Q You mean to say that when you are a long way from the mouth of the mine heading will not provide sufficiently? A It there is a great quantity of air it may do.

2119 Q Then, if you have a current of air, because you carry it along? A No, because it ceases. It may carry a small quantity along.

2120 Q Do you say that it is dangerous to work for more than 30 yards in a cut through with less than 1? A Yes, it is dangerous unless there is sufficient air there.

2121 Q You work for more than 30 yards with less than a prospecting drive. Why isn't dangerous in the one instance and not in the other? A You are since in the tunnel mouth in the prospecting drive.

2122 Q Always? A Not always.

2123 Q You say that it is dangerous when driving a road, but that it will do in a prospecting drive? A I do not see that it makes a great deal of difference. If you are prospecting for coal near the tunnel mouth it is all right because you can always carry the air easier than a long drive in. You can carry the air easier at the tunnel mouth.

2124 Q You can make back then? A It is not easy, but you work under better conditions near the tunnel mouth.

2125 Q If you are working a road near the tunnel mouth, are you content to have less than 1 more than 30 yards without a cut through? A You are in a better position near the tunnel mouth.

2126 Q Then why do you allow men to work prospecting drives? A I have already told you.

2507. *Mr. Howe* [Does it not follow that if a door is a partitioning one there is no place to put a cut through into the room? How can you get in a cut through when there is nothing there?]

2508. *Mr. Wade* [I do not see that.]

2509. *Q* In prospecting doors you have better for a good deal more than 10 yards without a cut through?

A Yes.

2510. *Q* And the same work as them? *A* Yes.

2511. *Q* And do the work satisfactorily? *A* I cannot say that.

2512. *Q* You have never heard of these suggestions? *A* I cannot say that I have.

2513. *Q* Do you say that there were a safety lamps at Acadia when you got there? *A* A few.

2514. *Q* Did you see any? *A* There were few.

2515. *Q* Do you say that in all these were in the mine? *A* Indeed I saw them more of them were gone. There were lamps, and had a few in the mine, and we had to take them up. I am glad, if there had been more lamps there, there would have been more lives saved.

2516. *Q* Do you know that a big man was sent from here before to look for more safety lamps? *A* Well, we do not want that kind of thing to occur again.

2517. *Q* Do you know that the first of these lamps are used at the delivery about 4 o'clock? *A* I could not say what time. It was some hours after the explosion.

2518. *Q* Is not about changing the chief cause of these deaths an explosion? *A* You are asking me questions on matters which I do not understand anything about, now that I have said.

2519. *Q* You said as that factories are dangerous, do you know that other cheap mines because of the ventilation in the mode of the same being brought, and the air currents going in all directions? *A* Yes, but if the furnace was gone it would be worse.

2520. *Q* Do you not know that an explosion does not do the business? *A* I know it generally does.

Continued by Mr. Bruce Smith—

2521. *Q* You are a member of the Delegation Board? *A* Yes.

2522. *Q* How many are there of you? *A* Nine, from nine collieries.

2523. *Q* When you are discussed and recommendations you discussed them? *A* They came from the Lodges.

2524. *Q* Can you identify which lodge they came from? *A* I cannot say.

2525. *Q* Are you a member of any lodge? *A* Yes.

2526. *Q* Did you take part in the discussion? *A* Yes.

2527. *Q* Which one is from your lodge? *A* The one recommending not to go more than 10 yards without cut through.

2528. *Q* Is that the only one? *A* I took part in the discussion of the whole lot of them.

2529. *Mr. Lough* [I object to any specific instructions being referred to in this matter. The witness is being asked what specific matter he brought forward; and this would show the Managers what matters were such with him.]

2530. *Mr. Howe* [I think the Delegation Board may be treated as a body, and that the witnesses should be concerned as to their own contribution, but I think that the same work goes should be left alone.]

2531. *Mr. Bruce Smith* [Q] I do not want to know anything about the inner working of these lodges, I want to know to what extent these delegates have formulated their recommendations. Out of all these there is only one which you took part in originating? *A* I do not mean that.

2532. *Q* There is only one of the whole twenty which you took part in originating? *A* It came from the lodge I represent. That is what I mean to say; but I may or may not have taken part in it.

2533. *Q* That was in the most you took part in originating? *A* Yes.

2534. *Q* Have you ever been a clerk (specify your name)? *A* No.

2535. *Q* Have you taken part in offering them? *A* You see it is a job that you want competent men for.

2536. *Q* Which do you consider the qualifications? *A* A man who has a good knowledge of pits and works in a quarry mine.

2537. *Q* How do you account for the fact that, whilst one of the recommendations suggest that there should be weekly takings of air in a mine, when the miners have the opportunity for doing that there themselves they do not do so, and are at its mouth? *A* It is very hard to get men competent to make a thorough inspection. We find it unsatisfactory. The men who are appointed do not go satisfactorily into it.

2538. *Q* Why not? *A* Because of the time at their disposal, and others like.

2539. *Q* Does the Lodge, or body, who appoints them offer them payment? *A* Yes, it pays them.

2540. *Q* And yet you had difficulty in getting them? *A* Yes, in obtaining proper men.

2541. *Q* Do you not know you can go anywhere in a neighborhood for men? *A* Yes.

2542. *Q* And yet there is a difficulty in getting competent men to do it? *A* There are plenty of men competent, but they would not take the job on.

2543. *Q* At least you consider that the safety of the miners depends largely on it, you cannot get men to take the job on—go and investigate the condition in the interest of their fellow men? *A* That is so.

2544. *Q* This is a matter on which the miners consider the safety of their class depends. There are men competent enough to do the work, but you cannot get them to take it on? *A* That is how it has been.

2545. *Q* The past time, with regard to the amount of air that ought to be provided for horses and men, have many collieries had air as required by a man? *A* 100 cubic feet.

2546. *Q* I do not mean required by the Act? *A* I know no other.

2547. *Q* Do you know whether it is 18, 25, or 100 feet? *A* No.

2548. *Q* Or for a horse? *A* No.

2549. *Q* You do not know how much is enough to burn a large mouse? *A* I say that if it takes 100 cubic feet for a man it ought to take more than 100 cubic feet for a horse.

2550. *Q* You do not know how much oxygen of air 100 feet burns for a man? *A* No.

2551. *Q* You do not know whether it takes 75 or 100 per cent oxygen? *A* No.

Continued by Mr. Robertson—

2552. *Q* Your explanation is confined entirely to the Mount Kisco Colliery? *A* That is right.

2553. *Q* There is only one station of working there? *A* Only one system.

2554. *Q* You have no knowledge of any other system? *A* No. Only of the system at the mine. 2555.

Witness: J. McNeill, 4 January, 1903.

- 3624 Q. You cannot say whether under different positions a different method of working would be necessary? A. Not unless I know the different conditions.
- 3625 Q. I mean under different conditions from those you find at Mount Kisco? A. I cannot say that. I do not know what the different conditions would be.
- 3626 Q. You ask the cut-throughs to be put in every 30 yards. If that had the effect of reducing the size of the pillars, and pillars larger than 30 yards were required, what would you do then? A. Thirty yards of pillars would be plenty.
- 3627 Q. I will get it another way. If it was found necessary to have pillars about 100 yards apart to support the strata above, how would you get on with cut-throughs only 30 yards apart? A. I do not think it would be necessary to have pillars of that size.
- 3628 Q. Would you be surprised to learn that there are pillars in your own district where it is necessary to have 100 yard pillars? A. I would be surprised.
- 3629 Q. I will tell you that it is a fact, as that cut-throughs every 30 yards would hardly be fitted to them? A. No. They would not.
- 3630 Q. Do you know that according to the Mount Kisco adequate ventilation must be supplied? A. Yes.
- 3631 Q. Does it matter to you how that adequate ventilation is supplied? A. Not so long as it is supplied.
- 3632 Q. It does not matter whether it is below a brick wall or through a cut-through or a location, so long as you get it? A. No, so long as we get it, but we do not get it.
- 3633 Q. You say that ventilation should be secured by cut-throughs, and that it cannot be secured without cut-throughs? A. Our experience is that it cannot. We find that the workings off with a location, and that it will not follow you.
- 3634 Q. If you are told that in a quarry mine in that district a heading without cut-throughs was carried in for 700 or 800 yards, and that the ventilation was sufficient, would that alter your opinion? A. What was the width of the heading?
- 3635 Q. A 16-foot heading, and I mention that to show that it can be supplied? A. Well I would not care to work in it. So long as you can get ventilation it is all right, but we cannot get it. If you can give ventilation I admit that the provision as to cut-throughs may not be necessary.
- 3636 Q. You ask for a record of the ventilation to be taken every week. You, yourselves, or anyone, can have that ventilation taken? A. Yes, we can take it, ourselves, but would it not be better for some official to take it?
- 3637 Q. A Government official can go at any time? A. Yes.
- 3638 Q. You say for miners' safety to be watched, as well as the heading rock? A. I do not think I need return answers, but the travelling roads.
- 3639 Q. But is it not necessary to watch other parts of the mine where dust may be? A. Yes.
- 3640 Q. How will you do that? A. There are different ways of doing it.
- 3641 Q. Tell me one? A. You can have the same way that we have, you can go along with a can of water as you go along.
- 3642 How would you get water along the travelling roads where there are no ditches? A. I think it would be a hard matter, unless you had pipes down and had a hose.
- 3643 Q. Would it not be a difficult matter to take water in all parts of the mine where dust may accumulate? A. It could be done with pipes.
- 3644 Q. It would be rather an expensive matter, would it not? A. When once down in a travelling road the pipes would last for many years.
- 3645 Q. You said that there was difficulty in obtaining competent men to inspect the mine. Do you consider that Mr. Nichols and Mr. Wyse are not sufficiently competent to inspect and report? A. They may have done it, but that is a good while ago.
- 3646 Q. They have the power to go anywhere in a mine? A. Yes, but we find it difficult to get men to inspect.
- 3647 Q. Could you not get Mr. Wyse? A. I could not say. He resigned from the position.
- 3648 Q. Now as to mechanics. I suppose you know that a large number of the mechanics in every colony are men from the statutory list? A. Yes, most of them are 10 feet.
- 3649 Q. Is it only under special conditions that they are the one the Act requires? A. We want them all to be large.
- 3650 Q. You cannot give me any instance of men being injured, because they were not large enough? A. I cannot say. I have seen a lot of us passed into one small one.

Examined by Mr. Nichols:—

- 3651 Q. Is there any reason why the battaling is not carried up? A. I cannot say.
- 3652 Q. If a disaster were to happen causing a slide you would not be more than 30 yards ahead of the air under your proposal, but under the present system of battaling you may be 300 yards ahead of the air, through the battens being driven off relatively? A. Yes.
- 3653 Q. Is that one of your reasons why you want cut-throughs? A. Yes.
- 3654 Q. Is that your principal reason? A. Yes.
- 3655 Q. Is there any difficulty in getting independent persons to inspect the mine? A. Yes.
- 3656 Q. You cannot suggest Messrs. Boggs and Co. A. No.
- 3657 Q. You can only suggest it if you please? A. That is right.
- 3658 Q. You can only do it once a month? A. Yes.
- 3659 Mr. Wade: The rule says from time to time. At least once a month.
- 3660 Mr. Nichols: Q. Have you known of cases of men taking the position, and find the company has made it a piece of complaint? A. Usually the matter has come before us.
- 3661 Q. And that is why you think it is necessary that the Act should be made more stringent, and the inspection be made apart from the miners altogether? A. Yes.
- 3662 Q. You report the miners as being under the thumb of the Managers in some extent? A. Yes, necessarily they are.

Re-examined by Mr. Robertson:—

- 3663 Q. Do you know there have been a great many inspectors in the district by citizens? A. No.
- 3664 Q. Did you ever hear of anyone that has walked? A. No, but I have heard them talking about it.

[The Commission, at 3 p.m., adjourned until 11.30 a.m. on the following Tuesday.]

FRIDAY, 12 JANUARY, 1963, 11.30 a.m.

[The Commission met at the Court House, Wellington]

Present—

C. E. R. MURRAY, Esq., D.C.J. (PRESIDENT).

D. A. W. ROBERTSON, Esq., COMMISSIONER

H. KITCHING, Esq., COMMISSIONER

Mr. Bruce Smith, Director of Mines, instructed by Mr. Wood, Crown Solicitor's Office, appeared on behalf of the Crown.

Mr. A. A. Johnson, Chief Inspector of Coal mines, assisted Mr. Bruce Smith.

Mr. A. A. Lough, Solicitor, appeared on behalf of—

(a) the representatives of deceased persons, whether die (victims of the explosion);

(b) the employees of the Mount Kowahi Colliery (owners, wharves, &c.);

(c) the Haurua Colliery Employers' Association (The Southern Mines' Union).

Mr. C. U. Wade (Barrister-at-Law) instructed by Mr. F. Carter, appeared on behalf of the Mount Kowahi Coal and Oil Company (Proprietors of the Mount Kowahi Mine).

(Mr. J. Gurbuk, Secretary to the Commission, was present to take shorthand notes of the evidence and proceedings.)

(The usual order was made for all witnesses to retire from the Court Room.)

2007 (The Honour stated that two witnesses had been subpoenaed by the Commission for this morning. The Honour suggested that it would probably be most convenient if they were examined by Mr. Lough first. Mr. Bruce Smith suggested that, as he represented the Crown, and that there had no special interest to watch over, he might undertake the examination of any witnesses called by the Commission. This was agreed to.)

Mr. JAMES HILGNER was sworn, and examined as today—

(This witness was called by the Commission at his own request. His examination included was, therefore, conducted by Mr. Bruce Smith.)

Examination is directed by Mr. Bruce Smith—

2008 Q What is your name? A. James Hilgner.

2009 Q What are you? A. A miner.

2010 Q What is the extent of your experience, in point of time? A. Almost towards three years.

2011 Q And how much of that twenty-three years has been in the Collieries, and how much in England, or Wales, or Scotland? A. I have lived about thirteen years in the Collieries, and ten in Yorkshire.

2012 Q In what capacity did you acquire your experience in Yorkshire? A. The first job that I went on I worked with the deputies at night-time inspecting places, so a boy, and from that to shovelling, putting, and coal getting.

2013 Q And all of the ten years in Yorkshire, how many years were you coal getting? A. I might say about two years getting coal, but I will be four or five years in connection with the coal face—that is, what they call putting, trimming, along the tramline.

2014 Q What do you mean by putting? A. That is putting the trucks, filling them and shoving them out to the face.

2015 Q And in the thirteen years you have spent here what capacity were you in? A. A miner.

2016 Q All the time? A. All the time.

2017 Q Getting coal? A. Yes, getting coal.

2018 Q Have you ever occupied any other position, such as deputy? A. No.

2019 Q Now, what mines have you been in? A. In the Vale of Croydon, the New Vale, Hemel Hempstead, and Mount Kowahi. Those are the five.

2020 Q How long in Mount Kowahi? A. About five years this February.

2021 Q During your work in the Mount Kowahi Mine have you ever had any experience of gas? A. Well, I have seen small flashes of gas.

2022 Q What do you call a small flash? A. After we have fired a shot and the dust has hung, that is, has not been knocked down on the ground—[interrupted.]

2023 Q How do you mean the dust has not been, you mean after the coal has not been knocked down? A. Yes, you go to have a look to see what work your shot has done, and your light on your head has probably ignited a small quantity of gas and caused it to flash along the road.

2024 Q Over your head? A. Over your head.

2025 Q For any flash of gas? A. Probably two or three seconds.

2026 Q How many times during your five years in Kowahi has that occurred? A. I dare say I noticed that about once.

2027 Q How long ago? A. Probably twelve months, or a little over.

2028 Q On both occasions? A. On both occasions.

2029 Q Both occasions about five months ago? A. Or a little over.

2030 Q Did you report that to anybody? A. I did not report the gas, but I reported the irresponsibility of one of the lad on.

2031 Q You did not report the gas to anybody? A. No.

2032 Q Why was that? A. The reason why I did not report the gas was this—that I always considered that, if a man was to report everything that he saw in a colliery, he would not be long there. There was no pretence for the mines at all.

2033 Q Apart from reporting everything you saw, why did you not report gas? A. I did not think there was that sufficient quantity to report it.

2034 Q You did not think there was sufficient quantity to be what? A. To be dangerous.

2035 Q That I suppose you know that when a little gas comes from a great quantity may come from it.

A. It is quite probable, yes.

Witness—J. Schick, 12 January, 1906.

- 2725 Q Did you know that the Mount Kemble Mine was recognized generally as a company mine? A Well, there persons that, of course.
- 2726 Q I mean that is how it was talked about? A Yes.
- 2727 Q Well, when you found gas on two occasions, did you remember that was a correct description of it? A Well, the reason—that some people would put the gas down to be through powder smoke.
- 2728 Q What do you put it down to? A I put it down to gas.
- 2729 Q What else have you ever seen in that mine? You were talking up about the ventilation, what was your experience of the ventilation? A The ventilation in pillars was bad, for this reason, that there was never any brattice entered into those pillar works in Kemble. There was never any brattice used in Mount Kemble that ever I see in pillar work.
- 2730 Q Did you ever complain of that? A I have complained of the air being bad.
- 2731 Q To whom? A To David Evans, the deputy.
- 2732 Q More than once? A Yes, on several occasions.
- 2733 Q How long ago? A Well, about the same time as I discovered that gas.
- 2734 Q What do you think is more dangerous—went of brattice or the explosion of gas? A Well, if the brattice was put there, it is probable there would be no explosion.
- 2735 Q That is not my question. Which do you think is more dangerous—the badness of the air, such as you complain of, or the occasional explosion of gas, such as you have experienced? A I should say that both would be common.
- 2736 Q Suppose you have the gas, and the brattice is put up, and you get good air, and put you have the gas. That that is not true. And suppose you are faced that gas at all, but considered the air bad, which do you think would be the most dangerous? A If the air was good, on you top, then would be no gas.
- 2737 Q I ask, if you experienced these things, which do you think is the more dangerous? A The gas.
- 2738 Q That being so, how is it you reported the worst of air and did not report the gas? A Because I thought of my position.
- 2739 Q Just tell me about that. Have you had any experience of anything resulting from a report about gas? A Well, I told the Deputy out at the Globe, for instance.
- 2740 Q A Newcastles man? A A Newcastle man.
- 2741 Q That was your grandfather? A Yes.
- 2742 Q Do you know of any other case, or had you heard of any other case? A No, I do not know as I do, but I think that as a rule.
- 2743 Q Did you ever follow that case up to see if it was a genuine tale of a man being drowned? A Well, so far as I read in the newspapers.
- 2744 Q Mr Brady? Q Were those Mr. Brady's letters you read? A No, not Mr. Brady's at all. I followed that man very closely in the newspapers.
- 2745 Q Mr. Brady Jones? Q You never got the information? A No, Brady's case.
- 2746 Q Did you see it in the form of letters at the expense of the examination of Newcastle? A Yes.
- 2747 Q What you would I suppose was, that, assuming that to be correct, you thought it would be better for you not to report it? A Yes.
- 2748 Q And that is the only instance which you know of in which you knew of such a thing taking place? A Well, I know other cases. Sometimes a man has been a firing tube place in a mine.—
[Interupted.]
- 2749 Q What sort of thing? A Any sort of thing.
- 2750 Q Tell me something you know of, not merely a remark that is floating about in the air? A I do not know of anything particular, but I know that, that the deputies never like appear to make himself too officious in reporting anything.
- 2751 Q You are speaking so generally, that is of not much use to the Commission. Can you give any specific instance in which the deputies have discouraged men from making complaints about anything that is going on in the mine? [Witness did not answer.]
- 2752 Q You do not know anything?—It is just a sort of general belief in your mind that they do discourage them? A Yes, they do.
- 2753 Q But you cannot tell what the belief is based upon, is that it—you cannot tell me of any case that you heard your belief upon that they would discourage you? A Yes, on the Globe case.
- 2754 Q Well, now, have you had any particular experience in the Mount Kemble Mine that you wish to communicate to the Court here, which you think of importance? A I might say that I wish to communicate this—that so far as the colliery was concerned, I came to the conclusion that it was underserved officially.
- 2755 Q Now by what class of men? A By deputies.
- 2756 Q What is your standard for that? A Well, about a fortnight before—
[Interupted.]
- 2757 Q No, sir, that is your opinion. I want to see, why do you say it is underserved? A Because the deputies were always complaining of being overworked.
- 2758 Q Will you tell me what deputies made those complaints? A Yes. There was Mr. Drangy. He used to complain very often about Mr. Nelson neglecting to put his brattice up.
- 2759 Q The men who complained, and the men complained of, are they not? A Yes.
- 2760 Q Drangy used to complain of what? A He used to complain of Mr. Nelson neglecting to put up his share of brattice in the haulage shafts, and throwing the whole of his share of the work up to him [Drangy's] shoulders. That was a continual complaint.
- 2761 Q Beyond those two, William McManney complained about David Evans throwing the work on to him as the nightmen drove in the shaft bottom.
- 2762 Q Was McManney a deputy? A He was a night deputy.
- 2763 Q And David Evans was a day deputy? A Yes.
- 2764 Q And I understood that McManney complained that Evans had thrown the work on to him to be done at night. A That is so.
- 2765 Q How long would that be long? A I cannot say the date. Let me see—it would be about six weeks before the disaster.
- 2766 Q McManney is dead too. What was the particular work that McManney complained that Evans had thrown on to him to do? A That is, shifting to put up the brattice in the bottom.

1767. Q You were extending the lantern in the work, were you? A Yes. Looking at the back.

1768. Q In those words or else? I mean say that that was your trouble in looking at the back? A At the moment that particular effect of the lantern was not Mr. Nichols'—I might not that six weeks before the disaster, when Mr. Nichols left, it was used.—[Interposed.]

1769. Q What was Nichols' position? A He was under manager before Mr. Nichols. It was proposed to get him up a lantern.

1770. Q Among the miners? A And the officials. I was one of that technical committee, and I was appointed to interview the Manager, to ask him would he allow the deputies to use the lantern as they would spend their work, to see if they would give any directions towards this technical.

1771. Q Towards the lantern for the undermanager? A For Mr. Lewis, the undermanager. I went to interview Mr. Rogers in his own private office at the house, and he told me he would rather not discuss the matter was that Mr. Lewis had always not his back against it.

1772. Q Against having a permission? A Against having permission. And another thing was this: he advanced the matter that a deputy might be asking a man for a subscription, when at the same time he could see that he wanted a spring in a pump put up, and he would not care to afford that man, so he would be frightened that he would not get a subscription.

1773. Mr. Anderson. Q I would like you to repeat that, please? A When the deputy went round, probably the person that he was asking for a subscription from might require a spring.

1774. Mr. Jones. Q What is a spring? A A spring to pump up the coal.

1775. Q A pump? A It is a short iron pipe against the coal and the floor.

1776. Q Now, just repeat that, in the same words if possible, that the man who was asked for a subscription might want a spring? A Yes, a spring in a pump, and at the same time he was asking for a subscription and he would not do his duty. That is what it was.

1777. Q There was a conflict of motives, weren't? A Yes. After that he said he had had complaints from one of the night deputies that the other deputy had not been doing his share of work. He did not mention the name of the deputy to me then, but he said, "I will let you know in the morning."

1778. Q He told you he would let you know? A He said, "I will see them all together in the office in the morning, and I will tell Nichols to let you know whether they can take on the subscription or not."

1779. Q He refused for a while, didn't he? A Yes.

1780. Q What have you to say against that? What is your objection to the position he took up? A I have nothing against Mr. Rogers for that.

1781. Q You do not complain of this? A No.

1782. Mr. Jones. Q What the witness wishes to state is that Mr. Rogers' own answer suggested that there was some decision against the deputies which was founded upon the fact that one deputy thought another deputy was not doing his work.

1783. Answer. Q Yes.

1784. Mr. Jones. Q Then that preliminary story about the subscription is not a matter you consider of it is only an introduction to what you have to say? A It is only an introduction.

1785. Q Are those the suggestions that you have to make with regard to the Miner Kenneth Kane, or are there any others—which you make a moment? A I do not all suggest that the lantern be done away with, and a box substituted, and also that a working pump be put down that we shall.

1786. Q You might give some account of the fan being substituted for the lantern? A I believe it would be the best way of ventilating the mine.

1787. Q In what way the best? A You can get more volume of air by a fan, I always think, than with a lantern.

1788. Q Have you had experience of fans? A All the collieries I worked in in Yorkshire are worked by fans.

1789. Q And how about the other mines you have mentioned out here? A I have never seen here, only in the Lehigh Valley.

1790. Q All the others you worked in here had the lantern? A Yes, but they were small mines compared to Mount Kennedy.

1791. Q Then your opinion is based on the belief that a fan would produce a better draught. Is that it? A Yes.

1792. Q Is there any other suggestion? A The suggestion would be that that it would be the means of putting on a safe passing gate up and a safe to stand the men up and down in case of emergency.

1793. Q And a working engine? A Yes, a small working engine. The same engine would very easily do the work the fan does.

1794. Q You think that would be an advantage? A I think it would be a great advantage.

1795. Q Have you considered what this would cost—how it would affect the cost of producing coal? I only want to know if you have gone into it at all? A No. I did not go into it.

1796. Q Is there anything else you could suggest? A I should suggest that those men, chodding, should have a certificate of mine level to show their competency.

1797. Q The chodders? A The shot-fires and deputies.

1798. Q What do you consider they require to know in order to do that work as it should be done? A Well, I should think they require to know the constituents of gases.

1799. Q The constituents of gas? A Yes, all that gas really is.

1800. Q And if you know gas when you are it, or when you find it, would not that be sufficient? A Well, yes.

1801. Q Then you do not want to know the constituents parts? A To know as they know when they are amongst it.

1802. Q So long as they know gas when they find it? A That is it, when they are amongst it.

1803. Q And you think they ought to be warned of that? A Yes.

1804. Q Do not you think every mine knows gas when it sees it with a safety lamp? A No, I do not think so.

1805. Q You know it, do you not? A I would know it if I saw it.

1806. Q Have you passed any examination? A No.

1807. Q Have you attempted to pass an examination? A No.

1808. Q Have you attended before at all? A No.

1809. Q Do you consider you are qualified to be a shot-firer? A No.

2100 Q But you think they should have a certificate showing that they really know how to discover gold?
2101 Yes.
2102 Now pass on to any other suggestion you have? A One thing that I do not believe in is
2103 drawing bottles out of basins that have been driven 70 or 80 yards upwards without cut-throats.
2104 Q How far apart do you think the outcrops should be on a mountain? A They did at one
2105 time use to be 30 yards.
2106 Q In which case do you mean? A In Mount Kereida.
2107 Q Do you mean all 30 yards? A Of old days, they have been driven as high as 50 with batties.
2108 Q And that was not in 1840? A I think that is too far.
2109 Q You think that is too far from a vantage point of view? A Yes. I might say that there
2110 was a landing there — [interrupted].
2111 Q Do you know anything about the defects of the reef—I mean the weight over that part of the
2112 same where these long piles are put? A The weight!
2113 Q Yes. Have you considered that at all? A No. I have never considered that.
2114 Q You know of course that the heavier the weight you have over any part of the mine the greater
2115 the pillars or the more frequent? A Yes.
2116 Q That you had not considered that at all in expounding the system that they should never be more
2117 than 30 yards apart? A They use not 30 yards apart at a mile.
2118 Q But you put that down as a maximum? A That is a maximum distance.
2119 Q Have you read at all upon mine? A Not much.
2120 Q Are you aware that in many English mines the pillars are 50 yards square? A I never heard
2121 of it. I have known them to be 50.
2122 Q Fifty yards square? A Yes, but to be carried up by batties all the way.
2123 Q And the batties carried? A The batties carried, yes.
2124 Q Well, you have just considered it from a vantage point of view, without respect to other
2125 considerations? A That is it.
2126 Q Are there any other officials in the mine who, you think, ought to have certificates, who do not
2127 have certificates at present? A Well — [interrupted].
2128 Q You said deputies, did you? A Yes.
2129 Q Deputies and shot-bores? A Yes.
2130 Q Now, about safety lamps—have you formed any opinion about those as regards the Mount Kereida
2131 mine? A Yes, about safety lamps. If you use not dangerous. Now, does that lead you to the opinion
2132 that safety lamps ought to be used on that mine for getting coal? A It quite looks as though safety lamps
2133 should be used in the mine.
2134 Q And so naked light? A No naked lights,—on any mine for that matter.
2135 Q Now, are there any other suggestions that you want to make in regard to the management of the
2136 mine—that have occurred to yourself—I do not want things that have occurred to other people that
2137 you merely receive because they have been proposed, but anything that occurs to you as the result
2138 of your experience? A I should suggest that the Managers go through a first-class examination, a thorough
2139 examination.
2140 Q Which Manager? A The head Manager.
2141 Q Of which mine? A Of any mine.
2142 Q They do, do they not? A They do now, but they have not all done so.
2143 Q But you are not referring to any particular Manager? A No.
2144 Q You know, of course, that, when the examination system was introduced, certain Managers who
2145 had been Managers for many years were allowed to continue in that capacity by reason of their great
2146 practical experience? A Yes.
2147 Q But you are not in favour of that? A No. I do not altogether approve of it.
2148 Q You think that although they have been Managers for ten years or twenty years they should be
2149 subjected to examination? A Yes. I think they have had time to qualify themselves a little.
2150 Q That is about all you want to suggest? A That is all, I think.
2151 Mr. Dixon: This witness went into the mine on the 16th August.
2152 Q My friend asked you a question into the mine after the explosion—how long after? A About eight
2153 or nine days.
2154 Q You went in with a party went in order to report, did you not? A Yes.
2155 Q Did you take any notes of what you saw? A No. I take it from memory.
2156 Q Have you a good memory? A Pretty fair.
2157 Q Now, tell me how long you were up about five hours, I think? A It might be a little more. I
2158 would not be sure.
2159 Q Did you go up in a cage after that? A I have been working as usual, but not in that part.
2160 Q From all you saw, did you form any conclusion as to fact, where the test of this explosion was?
2161 A I came to the opinion that the explosion was an explosion caused about where the Ashken were working.
2162 Q That is about all the conclusion you came to? A One conclusion, yes.
2163 Q That is as to the locality? A Yes.
2164 Q Did you form any opinion from what you saw as to the cause? A Well, I took it to be gas.
2165 Q Did you form an opinion, and when I say, did you form an opinion, I mean also had you reasons
2166 for forming that opinion? A My reasons for forming that opinion were those — [interrupted].
2167 Q I gathered the opinion that it was about Ashken's place and that it was caused by gas? A Yes.
2168 Q This is the only opinion you came to that conclusion about Ashken's place? A Because
2169 the men had got no chance to get away from where they were found, Ashken and me, and Assemsley
2170 and his mate, Toff and his mate, and Purrell.
2171 Q You derived the opinion from what you saw of their position that they had not had a chance to
2172 get out of the mine? A Yes, they had not drifted.
2173 Q In your opinion they were found just where they were working? A Further than that, I went
2174 to the boiler that was chained and bolted—the inside of the boiler in Ashken's place.
2175 Q By the chain and bolted? A Look at this. This is N. E. light, and Ashken was working up
2176 here [indicating the position of Ashken's place]. Where did you see that chained wood the time
2177 you were in that conclusion? A Somewhere in here.

- 2587 Q About the first cut-through before you came in there place? A Yes, on the low side.
- 2588 Q What do you call the low side? A On the left-hand side of the tunnel.
- 2589 Q That is the west side? A Yes.
- 2590 Q On the west side of where the Atterens were working? A Yes.
- 2591 Q You say the burning was on that side of the gate? A No. I saw the burning was on the side of the gate next to the gate.
- 2592 Q But on the west side? A On the west side of their working place.
- 2593 Q Was the gate on the west side of where they were working? A No. The gate was this way.
- 2594 Q Did you notice many pits here in that way? A Yes, about ten or fourteen.
- 2595 Q And all burnt uniformly on that side? A Yes.
- 2596 Q And not on the other? A Yes.
- 2597 Q Burnt on the side on which they were working? A No.
- 2598 Q They were burnt on the side next to the water? A Yes.
- 2599 Q No more? Q Which water?
- 2600 Q No more. [Interposed] [Interposed]
- 2601 Q Which side of the gate?—on that side or this side? A On that side, where they were working.
- 2602 Q No more. [Interposed] A At all events, I think your Honor may take this from me, that the clearing of those pits was on the side nearest the gate.
- 2603 Q Is that so? A Yes.
- 2604 Q Does that lead you to my conclusion as to what part the gate itself played in this matter? A I came to this conclusion from the fact when these men were working, that they must have been only working there about half a day on that coal. And they had driven their tracks the day previous from the back of the stoke and it had fallen in, and had driven the gas out, and that the gas was lit at their lights.
- 2605 Q And you really think it was lighted at their naked lights as they worked? A Yes.
- 2606 Q Another instance you said was that you found these men lying just where they had worked? A Yes.
- 2607 Q They had not got away at all, and it had been very sudden? A Yes.
- 2608 Q That is as to the burning;—may I ask you form the opinion that it was gas? A Because these men were burnt, and the timber was charred.
- 2609 Q That is burning, and the burning must have been from some inflammable?—? A Substances.
- 2610 Q Did you notice at all in your track the direction in which the doors had gone? A There was one that it jammed at the bottom of the mine that stuck my attention. That was two days—the way in which they were driven.
- 2611 Q How were they driven? A They were driven more on their side.
- 2612 Q Were they driven north, south east, or west—were they driven away from the gate? A Opposite the gate. They were driven more on their side.
- 2613 Q Opposite the end of the gate? A Yes. They were driven sideways instead of being driven away.
- 2614 Q They were turned away on their side away from the gate?—suppose that I look in the gate, then they were shown out here [indicating a direction at right angles to the door]? A Yes, that is right.
- 2615 Q Was that the only sign of force that you noticed particularly? A About that particular place.
- 2616 Q Did you not notice it in other places? A I noticed it from the 4th Right onwards, that the door had all been driven out of the tunnel north.
- 2617 Q Without telling me exactly what things you saw, did you see indications of force going in some ways than that? A Yes.
- 2618 Q Is how many directions? A Oh, in three or four directions. That is explained from No. 4 Right.
- 2619 Q Are there any other conclusions you came to except those as to where it took place, and the cause of its taking place? A I came to the conclusion that it took place at Atterens and travelled down the main tunnel (No. 1 Right), until it got to the 1st Right, and then met the 1st Right, and then travelled upwards to the main tunnel.
- 2620 Q What do you call the main tunnel—the No. 1 Right? A I call it the main tunnel right out to the surface.
- 2621 Q That is No. 1 Right? A Yes, No. 1 Right.
- 2622 Q You think that this explosion met an accumulation of gas? A Yes.
- 2623 Q The first explosion met an accumulation of gas? A I think it was lighted in the first place at Atterens, travelled down Atterens down the main road—[Interposed]
- 2624 Q How did it get to the main road, because it is a long way off? A Yes, quite so.
- 2625 Q You think it went down to the No. 1 Right? A Yes.
- 2626 Q And then down the No. 1 Right out? A I think it got in the first place at Atterens and came down from that place to the main tunnel.
- 2627 Q That is No. 1 Right? A Yes, so far as the 4th Right, and I met the whole accumulation of gas there that had come out of the 4th Right workings. Of course in my opinion there was lots of gas in the 4th Right workings.
- 2628 Q What reason have you for thinking that there was an accumulation of gas in the 1st Right? A Because there have been thousands of tons of coal burnt there.
- 2629 Q Is that so? A In due to my own workings.
- 2630 Q Is that your only reason? A My reason is that there has been too much coal left there as that waste working.
- 2631 Q No more? Q Coal that had been burnt? A Coal that had been accidentally hoisted through falls and had been allowed to go down there.
- 2632 Q No more. [Interposed] A In your time? A Yes.
- 2633 Q To what extent had coal been hoisted there? A I have seen the pillars burnt.
- 2634 Q Through falls all?—and down? A No, not down; by the fall all all round them.
- 2635 Q The falls were being cleared away to get the coal out? A That is so.
- 2636 Q You say the coal fell all round the pillars in some cases through neglect, neglect of what kind? A Well, through not a little expense.

Witness—J. Block, 30 January, 1937

2907 Q A little explosion would have kept the roof up and have enabled them to get those pillars out. A Yes.

2908 Q Was there any other reason for supposing that it met with a quantity of gas when it got to No 4 Right? A I took this reason, that, going in the main tunnel, everything was knocked out from the 4th Right, there was a terrible amount of destruction till we came to the 4th Right. When we came to the 4th Right there was no destruction further in.

2909 Q Forthen is no further out? A In towards the workings. All the destruction took place from the 4th Right outside.

2910 Q Then is Atkin's (indicating the position of Atkin's working place on the map) and you believe the explosion came out from the No 1 and then went down to No 4 Right?—Which do you call the No 4 Right—down here? A Somewhere about here—that is more like it (indicating No 4 Right on the Plan).

2911 Q And you think the explosion came down the main tunnel and it reached No 4 Right? A No.

2912 Q What happened then? A It ended here, and then came out and down the main tunnel.

2913 Q You think it ended there (No 4 Right) and lighted the gas on the gas (the 39 acre gas), and then what did it do? A, Drove out of the main tunnel and right out of the pit—right out in the mouth.

2914 Q Was it your idea that the redoubts got out of the lower going down the main tunnel with not nearly a continuation of the force coming down them (from Atkin's working place)? Why do you suppose it took a turn here and then came out again? A Well, because gas is a thing that will spread in all directions.

2915 Q Admitting that how do you explain to the Commission that the forces which you saw coming down here (from Atkin's working place through No 1 Right to No 4 Right) and going down here (down No 1 Right from No 4 Right to mouth of main tunnel) were not simply one movement but not? A Because the force from this direction down here (No 1 Right) between No 4 Right and the direction of Atkin's working place) was not so great as that down here (No 1 Right, between No 4 Right and mouth of main tunnel).

2916 Q Then you say that the damage done from the point of No 1 Right opposite the gas (the 39-acre gas) down to No 4 Right was not so great as from No 4 Right out? A Yes, not by half.

2917 Q And that leads you to the conclusion that as great force entered the gas (the 39-acre gas) and came out again with increased and increased force? A That is it.

2918 Q Why do you say the redoubts were greater down to the No 4 Right than beyond No 4 Right? A I say the force were less down to the Fourth Right than they were from the Fourth Right out.

2919 Q Why do you say that? A On account of the waste working.

2920 Q That is the case of it, but what led you to suppose it was a greater jump out than in? A By the destruction that was done.

2921 Q You saw more indications of destruction? A Yes.

2922 Q You mean heavier weights moved, and all that sort of thing? A Yes; and more falls, and so on.

2923 Q Are there any other conclusions you draw from your view that would be of value, do you think? A Another reason that made me come to the conclusion that it would be gas round Atkin's place is this: that the air travelling in the main tunnel was not directed into the proper channel, that was, that there was not a flow on top of the old Left main shaft where there should have been one.

2924 Q You will have to admit that, I am afraid otherwise it will not mean anything. [The Witness explained his evidence by the Plan.]

2925 Q Now, your evidence is that, first as the air was going up No 1 Right—which you call the main tunnel—started off going on past No 3 Left it went into No 3 Left for want of doors, and as that was the air, instead of going round by Atkin's place — A Would travel round towards the furnace?

2926 Q Did you ever observe that there were no doors on No 3 Left before the accident? A Yes; I observed that there were none.

2927 Q Mr. Finch? Q Did you say "had observed"? A Yes; I had observed it, because I had worked down there before.

2928 Q Mr. Atkinson? Q Do you know the Third Left? A It is the farthest rope road into the left.

2929 Q Mr. Atkinson? It is not a rope road at all.

2930 Q Mr. Bruce Smith? Q That is not what you mean? This is the rope road here (pointing it out on the Plan)? A I made a mistake, that is the one I mean the Fourth Left.

2931 Q Mr. Bruce Smith? He shows his evidence, your Honor, this way: Instead of No 3 Left he says it is the rope road, No 4 Left. He says there is no door there, and there should have been one over two doors, and that the waste of them altered the air to run straight down towards the furnace.

2932 Q Witness? Yes.

2933 Q Mr. Bruce Smith? Q In addition to observing this, had you ever complained of it? A No; I never complained of it.

2934 Q Did you ever communicate your observations to anybody else? A No.

2935 Q Had you ever worked in any place which was affected by the want of a door there? A I cannot say that I have. I was only down there one quarter.

2936 Q Where were you? Near Atkin's place? A No; it was in West and Blackley's place.

2937 Q Did you look at that place where you say the door should have been after the accident? A Yes.

2938 Q Did you see any signs of a door that had been there ever since? A Not in the rope road—I did not.

2939 Q I mean in the rope road? A No.

2940 Q And I understand you to say there never had been one? A Not to my knowledge.

2941 Q Where had you ever worked in that part of the mine—has heg before? A I was down that section the night before.

2942 Q Did you go back way in? A Sometimes I used to go down the rope road, and sometimes down the back heading.

2943 Q You used to go in No 1 Right, and down that rope road? A Yes, sometimes, and sometimes down the back heading.

2944 Q The two long road going parallel with that road? A Yes.

2945 Q Can you say of your own knowledge that there was no movement or going into those places where Atkin was? A No, I cannot say that.

1846 Q It is a tapestry of pure, from your knowing or your believing that there was no door there?
A No. I could feel a greater volume of air travelling down there than you could in the main tunnel—the
apertures leading back and forth.

1847 Q Do you know anything about accident at all—about the remarkable nature or anything of that
kind? A No.

Cross-examination by Mr Wade—

1848 Q You were subpoenaed to come here? A Yes.

1849 Q Do you know how your name was first mentioned?—did you offer to give evidence to anybody?
A Yes.

1850 Q To whom did you offer? A The Secretary.

1851 Q Where was that? A Probably a week ago.

1852 Q Did you believe that you had information that would be useful to the Court when you volunteered
to give evidence? A Yes.

[The witness suggested that it would be better for Mr Lynght to examine the witness before Mr Wade
cross-examined.]

Cross-examination by Mr Lynght—

1853 Q You said something about how long an breathing carried into the pillars,—what pillars did
you refer to? A I referred to all the pillars.

1854 Q If the breathing was not carried there, how were these pillars ventilated? A By cut-throughs.

1855 Q Was not that superior to the breathing? A I should not, thinking, for this reason: that breathing
has been put in since this disaster, into the pillars.

1856 Q You mean in addition to the cut-throughs? A Certainly.

1857 Q How far would not be heated,—how far from the face was not heated? A What? the
pillars?

1858 Q Yes? A There was never any heating at all.

1859 Q How far would the men be working from a cut-through without any heating? A About
50 yards.

1860 Q How was the air carried up to these men? A It had to travel over the hills the best way it
could.

1861 Q I understand that no provision was made to carry the air 20 yards to the face? A Only by cut-
throughs.

1862 Q I mean, where there were cut-throughs, and the face had been driven 20 yards up, was no
provision made to carry the air up to the men working in that place? A There is a pillar.

1863 Q Was that the man where you were working in No. 1 and No. 2 place? A No, that was a
breasting.

1864 Q Was it the man in the pillars in this No. 1 Right where Athol and you were? A No, these
pillars were nearly finished.

1865 Q Do you know of any pillars in that vicinity where that was the case? A Well, there was
Athol—the only one that I know of.

1866 Q Any others? A I do not remember any others. We do not go in any pillars there.

1867 Q Do I understand then that the air coming along would pass through a cut-through, and the men
might be 20 yards away up at the face without any air, no breathing having been put in carry it along?

1868 Q [Mr Wade objected to the form of the question. He considered it should be put separately in
sentences.]

1869 Q [Mr Lynght.] Q Do I understand that with the exception of cut-throughs there were no means of
carrying the air to the working place? A Yes, in pillars.

1870 Q Then would it happen that these men would be without air in those working places in pillars?
A Only what was provided by the cut-throughs.

1871 Q If men were working 20 yards from a cut-through, what means had they of getting fresh air?
A They had no means. They had no heating.

1872 Q They had no means at all? A That is right.

1873 Q Where you complained to them of the deficiency of air what did he say? A Just shuffled it off.

1874 Q What did he say? A I could not remember what he said. I could not remember the exact
words.

1875 Q Give us the substance of them? A He might say, "You are too soft for this country," or something
like that or perhaps it is a by-way. I could not tell the exact words.

1876 Q Did he do anything to improve the ventilation? A No.

1877 Q Did he treat the complaint with contempt? A None of that description.

1878 Q Mr Wade. Do not lead the witness.

1879 Q Mr Lynght. I am cross-examining.

1880 Q Mr Wade. It is not supposed to be cross-examination.

1881 Q [Mr Lynght.] Q When you say the get was understood, as far as deputies are concerned, what do
you suggest as a remedy? A I suggest more deputies.

1882 Q What for—the day or the night? A Both day and night.

1883 Q Do you know of your own knowledge where any deputy has neglected any duty thought want
of time? A I have had occasion to be on night work. I have known deputies not to examine the places
as sometimes was the case.

1884 Q What deputy? A Dunbar, the night deputy.

1885 Q How long ago? A Probably two years or more ago. It might be two years ago.

1886 Q How often? A Oh, on several occasions.

1887 Q In what part of the mine? A In No. 1 District.

1888 Q What do you mean when you say he did not examine in accordance with the Act? A He did
not examine faster in the air supply.

1889 Q Did he examine the places within three hours of the men starting work? A No, not all the
places.

1890 Q About how many places in the No. 1 District were not examined by him within three hours of the
men starting work? A Sometimes they would vary. Sometimes there would be a dozen, sometimes more.

1891 Q In what? A In a night.

2061. Q. At that time what was your duty? A. I was lifting shoes for the contractor, in place of those now like.
2062. Q. At night-time? A. At night-time.
2063. Q. Do you know of any other Oxytels besides Danney not properly examining? A. McMurphy, down in the shaft street.
2064. Q. When? A. Oh, about the same time.
2065. Q. What do you say about that? A. About ten or twelve places only used to be examined over throughout the night shift.
2066. Q. Were they examined within three hours of the men starting work? A. No. They were examined at about 10 o'clock at night. There would be six men marked up for the night men, to go in and get some. They would put the numbers on the board. The night deputy would begin with the night shift, and at 9 o'clock, to get those men to work. He would go on to these places first to let those men get to work in the state up. He would, perhaps go into No. 12, the first number on the board, and he would pass that. Then he would go on to No. 38. He would pass lots of places to get on to three, as per report, to check the night shift men. These places would not be examined again until the following night.
2067. Q. By him? A. By him.
2068. Q. Do you know whether they (Danney and McMurphy) marked these working places as safe after that? A. Yes.
2069. Q. Did you ever say anything to Danney or McMurphy answering that? A. No; I did not. It would be more than my position was worth.
2070. Q. You did not report gas when you found it? A. No.
2071. Q. Do you know whether other persons did report gas in your presence? A. No. I could not say that I do.
2072. Q. Have you ever known the air to become reversed in Kemble? A. Yes.
2073. Q. How often? A. Well, two or three times.
2074. Q. When was the last instance? A. Of course, I cannot give you the date exactly. I used to be active on a Friday night some recently when my other time. I think it would be between two and three years ago that I noticed it particularly.
2075. Q. Do you know what the cause was? A. I put that down to be through letting the furnace run down.
2076. Q. Have you noticed that reversal of the air at any time when the pit was working? A. No, I cannot say that I do.
2077. Q. How often, say in the past, have you noticed that reversal of the air? A. Well, the job that I was on was more an ongoing job, the strolling kind. I used to go and do it to oblige the contractor when he was a man about.
2078. Q. Did you not get paid for it? A. Certainly.
2079. Q. How often in one year did you observe the air being reversed? A. Probably two or three times on Sunday night.
2080. Q. In a year? A. Yes.
2081. Q. And that was two years ago I think you said? A. Yes, two years, or a little more.
2082. Q. When you say it is more than your job was worth to maintain these measures, do you know of any occasion when any official has objected to a report being made to him? A. Any official has objected to it.
2083. Q. Yes. Do you know a man who has objected and been scolded, or anything like that? A. I cannot say that I do, but I know for a fact that nobody who does not like a man—a man who is underneath these—report anything to them as a rule—because they think they (the miners) are making themselves know as much as they (the officials) know. The officials do not like a man to know as much as they know. It is not all content—a mine a life.
2084. Q. Have you ever seen the safety lamps used to be the shiny ones the miner in Kemble? A. I saw those little Davy lamps used.
2085. Q. Who used them? A. James Baxter.
2086. Q. What was he? A. A shot-firer.
2087. Q. But how did he ignite the shot? A. He had a bit of wire.
2088. Q. Oh, well, I do not want to deal with him. Do you know of any occasion when a lamp has been used to light the shot? A. No, I will not say that.
2089. Q. When you were investigating after the disaster, did you go inside that little goaf—that 17 yards goaf? A. We went as far as we could go.
2090. Q. Did you discover any gas there? A. No. We discovered gas in Tully's head.
2091. Q. You did not tell us anything about that? A. No, because I was not asked.
2092. Q. But did not the Smith ask you if you had anything else to say? A. It is quite possible, and I might not think about that.
2093. Q. While did you discover gas on this inspection? A. It was in Tommy Tully's head—Tully and Dennis' head.
2094. Q. Was discovered it? A. Mr. May discovered it first.
2095. Q. What was he? A. A highway lamp.
2096. Q. Do you know what the proportion was? A. About a quarter per cent. I know this, first Mr. Fletcher stood afterwards with a safety lamp and he could not discover it.
2097. Q. Do you know whether the highway lamps were tried in that small goaf? A. I could not say that.
2098. Q. Speaking of the cut through. In your opinion, would cut through 30 yards apart make the roof any way strong? A. I do not mean the width of the cut through to be 30 yards.
2099. Q. If it is 30 yards apart, would it be 30 yards, will that make the roof in any way in your opinion, as it would of course? A. No, it will not, provided the cut throughs are put through narrow.
2100. Q. And what was would you recommend? A. I would on the day of the disaster, 5 feet in place wide enough.
2101. Q. Were you at the mine the day of the disaster? A. Yes.
2102. Q. Where were you working? A. In the shaft section, No. 12.
2103. Q. Do you know anything about the supply of safety lamps that were at the mine? A. Yes.
2104. Q. What was the supply? A. Well, there were no lamps at all.
2105. Q. No. What? Q. No safety lamps? A. No safety lamps to be had.

2030. *Mr. Langille* [Q] What was your own experience? *A* My experience was this: that when the accident took place I was working along with my mate in the deck section. I was on the T offshore shift, from 7 o'clock till 1, and that is how I escaped.

2031. *Q* You did escape? *A* Yes. I was working, and the only situation I had was a rapping in the arm, but being subject to that, I did not notice it.

2032. *Q* Where you caught? where did you do your best to escape? *A* I came out to the fish. There were about twenty men lying at the fish. After that, in the fish house, to come up on the telephone I and two came over up the travelling shaft to the No. 1, and there we came across a big fall, and met Johnny Morrison with a safety lamp, and he showed us way of the mine.

2033. *Q* When you got out, did you look for any safety lamps? *A* I did not look for any safety lamps there and then.

2034. *Q* How do you know there were no safety lamps there? *A* I know there were safety lamps in the premises, but not in order.

2035. *Q* How do you know? *A* Because I have seen them in the workshops.

2036. *Q* How many lamps you saw in order? *A* Oh, they were not in order.

2037. *Q* Did you examine them? *A* No, but I can tell you then, that men were using lamps with wicks, and they were continuously coming out of the tunnel mostly in light, because they could not get the lamps to burn.

2038. *Q* That was after the disaster? *A* Yes. The miners were continuously coming out of the mouth because they could not get their lamps to burn.

2039. *Q* You say they were having rags—wicks? *A* There was not a proper lamp wick to trim the lamps with.

2040. *Q* You saw that yourself? *A* Yes.

2041. *Q* Had there been a proper and adequate supply of safety lamps, would a number of men have been saved? *A* Undoubtedly. I believe all the men [present] at that time could have been saved.

2042. *Q* Then would you approve of a reasonable estimate that an extra supply of safety lamps and their repairs, equal to one-third of the number of persons employed below ground, be kept constantly in good order and ready for use at such colliery (Recommendation No. 11)? *A* Undoubtedly. I always thought that was so.

2043. *Q* You might tell me, in your experience of Kenville, how often have you seen Mr. Rogers in your working place? *A* I do not suppose I have seen Mr. Rogers inside that mine about five times in five years.

2044. *Q* Do you approve of a recommendation that Managers be compelled to give more personal care and attention to the management of their collieries (Recommendation No. 10)? *A* Yes.

2045. *Q* You might tell me whether you know each means of escape from the Kenville Mine? *A* No. Only one.

2046. *Q* Did you know your way out, when Morrison met you—or had you to ask your way out? *A* I knew where I was when I left Morrison.

2047. *Q* But up to that time did you know where you were? *A* Up to that time I knew I was in the travelling way.

2048. *Q* Did you know that way out? *A* Yes. That is the way in.

2049. *Q* Is that the only way you knew out? *A* That is the only way that I knew.

2050. *Q* In your opinion, should the miners be instructed on all the means of escape (Recommendation No. 10)? *A* Yes certainly.

2051. *Q* By whom? *A* By the colliery Managers, or by the officials, wherever they are.

2052. *Q* Now, speaking of this mine, has not reporting and not printing things out to the deputies, in your opinion, should there be an alteration in the Chairman Act to prevent a black hat being kept in a colliery? *A* I am quite in accord with that (Recommendation No. 10).

2053. *Q* Do you know of any case where a person has been discharged, and prevented from getting employment at another colliery? *A* Yes.

2054. *Q* You might tell us that? *A* John Heron's case.

2055. *Q* Where was he working? *A* At Mount Kenville.

2056. *Q* When? *A* Up to nearly twelve months ago—three or four months before the disaster.

2057. *Q* Do you know who discharged him? *A* He was not actually discharged. He was working on the stone, and he asked Mr. Rogers for a job on the coal.

2058. *Mr. Wade* [Q] Were you present at the time,—did you hear this? *A* I know it of my own knowledge.

2059. *Q* Were you there at the time? *A* Yes. I was in Mount Kenville at the time.

2060. *Q* Were you present when he spoke to Mr. Rogers? *A* No.

2061. *Mr. Wade* [Q] I repeat to the witness.

2062. *Mr. Langille* [Q] Now, what was he said to Mr. Rogers. Do you know that he left Mount Kenville Colliery? *A* Yes.

2063. *Q* Do you know if he got employment at any other colliery? *A* No.

2064. *Mr. Wade* [Q] I repeat.

2065. *Mr. Langille* [Q] Did he get employment at another colliery? *A* Not for a considerable time. He is not working at a colliery now.

2066. *Q* Do you know whether he was discharged from the colliery where he got employment? *A* Yes.

2067. *Mr. Wade* [Q] All he can say is that John left.

2068. *Mr. Wade* [Q] I could put any question he got discharged, or whether he left.

2069. *Mr. Langille* [Q] Do you know whether any steps were taken to prevent him getting employment? *A* Yes.

2070. *Mr. Wade* [Q] I repeat to the witness.

2071. *Mr. Langille* [Q] I have no objection to his saying anything that was done or said.

2072. *Mr. Wade* [Q] It seems to be almost impossible that the night we could know.

2073. *Mr. Langille* [Q] I have no objection to his saying I thought, perhaps, he might have been present at some particular colliery.

(At 11 p.m. the Commission adjourned until 2 p.m.)

ADVERSE

[On returning after lunch, Mr. W. R. Pratt attended to take shorthand notes of the evidence and proceedings.]

JAMES SHOOK, previously sworn, was further examined as under:—

2281 Mr. [Judge] Q How were the stoppings looked at in Kamila? A. I have never seen any looked at.

2282 Q How were they stopped? A. With dirt.

2283 Q Anything else? A. Nothing else. Picked up with stones and dirt.

2284 Q Have you observed any stoppings so picked up, whether they have given way? A. Yes, they will sink in time.

2285 Q Was anything done to remedy that? A. Not that I am aware of. There was never any quantity of their men employed to do anything.

2286 Q Can you give me any idea whether the leakage of air was considerable through that? A. The air would certainly escape. I cannot give any idea how much it would be.

2287 Q You said something about a heading having the brattice withdrawn? A. I mean there was an east heading to me where Power and Sullivan worked. It was withdrawn to a distance of from 20 to 30 yards—it drifted up that distance, and the brattice was taken out, and cut throughs were made afterwards.

2288 Q After the brattice was taken out, how long was it before the cut-throughs were put in? A. Some considerable time. The first one would take a month.

2289 Q Is the substance what provision was made to ventilate that heading? A. None.

2290 Q Do you know whether any gas or anything noxious accumulated there? A. I cannot say. There would be a most likely place for gas to accumulate. There would be no air to drive it out.

2291 Q How long was it left for any gas to accumulate on? A. Three months to any knowledge.

2292 Q Do I understand you to say that there were not sufficient depurators and not sufficient shaft-men employed to do the work? A. That is true.

2293 Q Can you give me any instances when work was urgently required and there were no men to do it? A. There were plenty of men whose names had to do their own work.

2294 Q Did any accidents result from there not being men enough to do it? A. I cannot say.

Continued by Mr. Wade.

2295 Q Do you say that the Company stocked the number of shaft-men to meet the expense? A. Yes, I do.

2296 Q Do you suggest that the Company worked like No. 4 right on to be very cost to mine expense? A. I will go on for a time.

2297 Q Will you say this that through the Company being shabby with money, the Company endangered the lives of the miners? A. Yes, I am afraid.

2298 Q You knew of this business before the disaster, did you not? A. Yes, I knew of it.

2299 Q You did not come to the request to give evidence? A. No, I was not asked.

2300 Q You did not offer? A. No.

2301 Q You were about the request? A. I was here one day.

2302 Q During the request? A. During the request.

2303 Q Since the request, you have been discharged? A. No, I will not say that.

2304 Q Will you say that you have not? A. It is not said. I have not been discharged. I will give you an explanation. You have asked for it and you shall get it.

2305 Mr. [Judge] Q You can say anything you like afterwards by way of explanation.

2306 Mr. [Judge] Q Did you leave of your own accord? A. I saw that the time had come when I would have to go.

2307 Q There were some personal relations between you and the Manager? A. Not up to them.

2308 Q Were there before you left? A. Not that I am aware of.

2309 Q You say that you think it that you were in good to demand—now explain? A. We commenced work on a level. I carried a pillar, and that pillar was only last a few weeks. It was understood that when a man carried a pillar only to last a few weeks that there was a place appointed for him when he had finished. He knew that before the work was done he knew the place where he had to go to where he had finished that particular work. In the case of one of mine and one I was not aware of where I had to go to sit at. I would never get to know until my place was finished. When it was finished Mr. Rogers, or the under-manager, and one or two of the men's names in the pit.

2310 Q Do you think that it was intended? A. I am sure of it.

2311 Q On whose part was it intentional—the Manager or the under-manager? A. Both combined.

2312 Q A combination to injure you? A. Yes, and the only reason I know of was giving evidence before the Arbitration Court.

2313 Q That is what you think? A. That is what I think yet.

2314 Q How soon evidence was given to you last? A. Yes.

2315 Q And the explosion was the last day in July? A. Yes.

2316 Q And the Company agreed work for the season on what day? A. I cannot tell you.

2317 Q Give us the month? A. I cannot tell you.

2318 Q Was it early in September? A. It might be.

2319 Q Was it after the request was finished in that Court? A. I believe it was.

2320 Q You applied to be taken on again? A. Yes, yes, I was an old hand.

2321 Q Did you say so? A. They could say for themselves.

2322 Q Do you mean they could not believe you? A. No. I consider that I was an old hand. I was there out of work through no fault of mine and I had a right to go back.

2323 Q Did you ask to be taken back? A. I put my name down.

2324 Q They had a right to object to your name? A. I will not admit that.

2325 Q You think you had a right to go back whether the Company wanted it or not? A. That is a right which I think I had—a just claim as one of the undermen who had suffered by the disaster.

2326 Q Now, you were talking about the Arbitration Court,—Mr. Justice Cohen was the Judge? A. Yes.

2327 Q Do you remember his asking those questions on your evidence? A. I do not know that I remember it.

1129. Q Did you hear him say that "Block" had given orders in a very satisfactory manner? A I did not hear it. You would not take my word for it.
1130. Q Do you remember that happening?
1131. A Yes, I thought. The witness has said that he does not remember.
1132. A Yes, I think. He has denied it.
1133. Q Now, have you discussed with anybody whom you think the explosion began. A No.
1134. Q Have you discussed anything about grievance and danger? A No, I have had no chance of discussing with anybody.
1135. Q Until you came here? A Until I came here.
1136. Q You kept those things to yourself about the danger on the mine for all these months and some of them for years? A Yes.
1137. Q When was it you left the mine? A Oh, about eight weeks ago, or more or less, I am sure. It might be more perhaps.
1138. Q Is there any living body who, you will say, has been neglectful of his work? A I say Dennis Evans has been neglectful of his work as not looking for gas.
1139. Q How do you know that? A I am not looking for gas.
1140. Q Did you follow him over the pit? A Certainly not.
1141. Q Did you only see him in the working places? A Yes.
1142. Q Did you not see that the working place had been examined every morning before you went to it? A Every morning—we took that for granted.
1143. Q Is there not a mark on your place? A Yes.
1144. Q You saw gas twelve months ago? A In my working place.
1145. Q Three twelve months ago? A Yes.
1146. Q During the last twelve months of Evans had looked for gas, he would not have found it? A I would not say that.
1147. Q Did you see it yourself? A I saw it on the occasion.
1148. Q Have you seen any sign of gas in a working place for the last twelve months? A I am only sure from particular times.
1149. Q Have you anything else against Evans for the sort of neglect of duty? A I say it is something for gas.
1150. Q Anything else? A In not examining the air when it is complained about.
1151. Q How often was it complained about? A One several times.
1152. Q You mentioned about the lecture to give evidence for a distance of from 70 to 80 yards, and you say that it was a month before it was recorded? A Yes, and it may be longer.
1153. Q Do you say men were working there? A No, it was an abandoned working.
1154. Q Do you say that you were there on the looking? A No, I am not sure of the distance.
1155. Q Were you in the place three months? A I was there just at it.
1156. Q You say it was an abandoned place? A There were a couple of sticks put about it.
1157. Q Showing that it was fenced off? A Yes, that is the way at Kynah.
1158. Q You think that it means that you are not to go inside them sticks? A That is true.
1159. Q You know that the place is not working and that it is against the rule for any man to enter it? A I question (they had no right to take the broken out).
1160. Q Do you say there was no provision made for carrying the air outside the workings? A I saw no provision.
1161. Q The air had been carried up to 90 yards of the place? A They could not get any air into the place. It could not get up for want of headline.
1162. Q Did the necessity to correct on a post the looking? A Certainly.
1163. Q What is the best off? A Not to my knowledge.
1164. Q Your people at what the difference is that you are compelled to do work which you think the shift men ought to do? A Yes.
1165. Q The work was done at the mine? A By the miners.
1166. Q Instead of by the shift men? A Yes, but it throws the whole responsibility on the miners.
1167. Q You prefer it should be done by the shift men, and the miners be relieved of the responsibility. A I believe there is too much responsibility thrown on the miners.
1168. Q What is the responsibility you mention? A The responsibility of a man having to be responsible for his own working place.
1169. Q You mention in more it was late to examine his own working place to see that it is safe? A Yes, because it is the responsibility of all the deputies and players on the mine.
1170. Q You believe in having a man there constantly during the day to see that your place is safe? A Just the same as in other parts of the world.
1171. Q Your knowledge? A I take knowledge the mine as I take Yorkshire.
1172. Q You say that there should be an officer put on the watch during the day to see that it is safe, rather than you should see it is safe for your own? A No, I say that the day deputy has as much right to look for gas as the doorman or the night deputy has at night.
1173. Q What is your complaint about the responsibility put on you? A I say it is making a man set as deputy who is only a miner.
1174. Q Looking for gas? A Yes.
1175. Q You complain of this? A Yes, there ought to be officials to do the work.
1176. Q And that you should be relieved of the work? A Yes, certainly. I think the day deputy should search for gas as well as the night one.
1177. Q Do you say that the miners should not be compelled to search for gas? A I say that the responsibility should not be thrown on the miners.
1178. Q What about the witnesses? A I think they should do first, although there are parts of the world where they are not.
1179. Q With regard to the stoppage, is your complaint that they were held improperly in the first instance? A Their duty was.
1180. Q How far back? A Since the pit started.

- 3183 Q. When these benches out of order were no steps taken to remedy it? A. Not that I am aware of.
- 3184 Q. Anyone could see them in that state? A. Yes.
- 3185 Q. The Government Inspectors could see them? A. Yes.
- 3186 Q. Would they remedy it? A. I would not know how much reliance on them.
- 3187 Q. Would you expect that the Government Inspectors, if they saw the shoppings in a dangerous state, would not take steps to remedy it? A. They might recommend it to be done, but I would not expect the Government Inspectors to be more than a human being.
- 3188 Q. Is that what you say? A. I have been in the pit five years, and have not seen the Government Inspector over in my place.
- 3189 Q. You say that you saw Mr. Rogers there five times in five years, now you say that you only saw the Government Inspector there once? A. Yes.
- 3190 Q. Do you say they are not there much more? A. I cannot say that.
- 3191 Q. Could you come across those shoppings anywhere? A. Yes.
- 3192 Q. It would not be much trouble to find them? A. No.
- 3193 Q. The Government Inspector could find this shopping you complain about? A. Yes.
- 3194 Q. But things go on in the same condition until the disaster—the shoppings not remedied and the place not improved? A. That is so.
- 3195 Q. And how long did you stop in this condition place? A. Until the quarter was up.
- 3196 Q. I mean at Mount Kemble? A. Five years.
- 3197 Q. Did you leave there during the five years? A. No. I had five years continuously.
- 3198 Q. I want to make this correct—you say the deposit used to neglect their work, but that been corrected by you to nobody? A. No.
- 3199 Q. You were a delegate to the Keble Lodge? A. Yes.
- 3200 Q. To be when? A. Two months ago.
- 3201 Q. Up to the time you left the mine? A. Yes.
- 3202 Q. For how many years? A. Three.
- 3203 Q. Was it not the duty of yourself, as a delegate to look after matters in the mine that affected the miners? A. I do not know about the inside of the mine.
- 3204 Q. Will you answer? No? A. I saw no, nothing in the mine.
- 3205 Q. It was not your duty to look after matters inside the mine that affected the miners? A. The shoppings are paid for that pit.
- 3206 Q. Was it part of your duty to point out anything in the way of danger inside the mine? A. No; I could not say that.
- 3207 Q. You would not say that? A. No.
- 3208 Q. Did you have no contacts with it? A. I say that it was my duty to point out any danger to the Manager.
- 3209 Q. That will do. If the Manager did not attend to it, was it your duty to report the thing to the Lodge? A. Yes; I will say that.
- 3210 Q. What parts of the mine have you worked in—yourself told us of the shaft district? A. All round.
- 3211 Q. Except the 5th Right? A. I have been in the 4th Right.
- 3212 Q. How long ago? A. Three years or two and a half years ago.
- 3213 Q. Were you working on the pillars? A. Yes, on the heavy double.
- 3214 Q. Now, come to the time that you saw gas, that was twelve months or more ago—they were both after being shot? A. Yes.
- 3215 Q. But you notice whether there were any remains of the hole to be seen in the place? A. There was nothing like that.
- 3216 Q. Did you see where the hole had been bored? A. I always bore my hole deeper. I hole my coal 4 feet and leave my hole 2 feet.
- 3217 Q. When the shot had been fired, and the coal brought down, was there any part of the shot-hole left? A. I cannot say, the coal was not full down. It is upon the coal as hanging and there is not enough powder to get it down, it is like that you say the gas.
- 3218 Q. The shot goes off, and the coal has not fallen, you simply crack it, and you have a hole left in the face where the powder has been in. A. Yes.
- 3219 Q. That was the way you saw gas on both occasions? A. Yes.
- 3220 Q. You saw gas on each of those cases? A. Yes.
- 3221 Q. But you went on working there? A. But I might not have been doing.
- 3222 Q. Did you have any further trouble with gas during the quarter? A. I cannot remember. A gas is not always being shot in a place.
- 3223 Q. As to the fault being allowed to show back—you mean it was not kept sufficiently to the face? A. Yes.
- 3224 Q. You have a right to ask it to be put forward? A. Yes.
- 3225 Q. Did you complain to the mine manager? A. Yes; I could.
- 3226 Q. If he did not remedy it, you could complain to the Manager? A. Yes.
- 3227 Q. Did you take that course? A. No; I complained to the Deputy. Once I complained to the under-manager and Manager I might as well show out of the mine.
- 3228 Q. What is his duty as deputy? A. I should like to say that I remember once Lewis came to me. I was working in a heading and I had to drive 4 feet. I asked Mr. Rogers how he wanted it driven. He told me. Lewis came to me and got on to go because I was over his head and went to Rogers. He said I left no right to go to Rogers—I should have come to him.
- 3229 Q. You would wish to be in the mine? A. Yes. Mr. Rogers gave me a chance of speaking to him.
- 3230 Q. Now, as a man who you employed in a lower district, a better district, and what then? There was plenty of hope of something a man would use in a mine.
- 3231 Q. Now, you have spoken about pillars where there were no cut-throughs within 20 yards of the face? A. I have said that there was no breach in the pillars.
- 3232 Q. Do you know of pillars where it were no cut-throughs within 20 yards of the face? A. I have seen pillars 30 yards long.
- 3233 Q. A distance of 20 yards to the nearest cut-through? A. Yes.

2030. Q. And he knows them? A. No, he doesn't.
2031. Q. There are still the places you have marked on, are they? A. I saw one in the next place to mine.
2032. Q. Of those that you speak of, what has been the trouble to you? A. That is.
2033. Q. What do you mean? A. I have found one.
2034. Q. Is that all? A. Yes.
2035. Q. You mean to say that the air was not circulating freely enough? A. Yes.
2036. Q. And I suppose the place is lost? A. Yes.
2037. Q. You say the duplicate used to make something sometimes. I've placed in the mine, —have you assumed that to anyone other than ourselves? A. I have not mentioned it to anyone.
2038. Q. You mean that under the Rules of the Act, and the Special Rules of the Colliery, the deputy has to examine all the working places, and mark them off as being safe, within seven hours before the men commence to work, you say that Mr. Murray will longer assist in many to twelve in the course of an examination, —can you give us the year for that—the date? A. Well, I can, pretty well. It is more than three years ago.
2039. Q. Is it a common practice? A. Yes.
2040. Q. You remember it to be dangerous? Yes.
2041. Q. Did you then, when you knew of it going on? A. Yes, I knew they were not carrying out the rules, but it had nothing to do with me.
2042. Q. Do you consider it dangerous? A. I certainly did.
2043. Q. You never spoke to Mr. Murray about it, he Letch, or Rogers, or even to the miners? A. No. I might as well pack up my things and walk away.
2044. Q. Did you think it involved danger to yourself? A. Yes, but you have to put up with many things in a coal mine.
2045. Q. Was the real reason that you did not report gas after the firing of the shovels because you were frightened? A. That is a fact.
2046. Q. Is not the fact, that you did not think it sufficient gas to be dangerous, and not worth while reporting? A. I thought more about myself.
2047. Q. Do you remember saying that you did not think it sufficient to be dangerous? A. Yes, that is right. If a man wants to report everything he can he would never work again in his life.
2048. Q. You know there is a rule that if you find inflammable gas you have to report it? A. I know the rule all the time.
2049. Q. Now, with regard to the foreman. It is three years since you found this reversed on a Saturday night? A. It may be less.
2050. Q. Is not that a fact, that it was at one time the practice to close the ventilation down and to bank the furnace fire? A. Yes.
2051. Q. You know that the order must not that ventilation must be kept going at the work end as well as during the work, and once then it has? A. No, it has not. Shortly afterwards it went on the same as before.
2052. Q. How on the whole? A. I cannot tell you the date, but it is since a minute issued by the Chief Inspector that the same thing has occurred.
2053. Q. How often? A. It has been once or twice, in my knowledge.
2054. Q. Did you report about it? A. No.
2055. Q. Did you tell the miners about it? A. No; if I have to work in a coal mine for 100 years I would report nothing.
2056. Q. There were a number of miners called upon to give evidence at the inquest? A. Yes.
2057. Q. Are they working at the mine still? A. Yes.
2058. Q. There were a number of men called upon for the photo in the action against the Company in Sydney for neglect? A. I know nothing about the case.
2059. Q. Do you not know that Q. was man's witness? A. I have nothing to do with that. As to Q. was, I believe he was called, but I will not have anything to do with it.
2060. Q. A number of men were to give evidence for Brexton? A. Yes, and some have been promoted.
2061. Q. Of those who were called for the photo? A. No, of those who gave evidence for the Company.
2062. Q. Do you want to suggest that the men are not qualified for the position they occupy—that they have been shovelled into them? A. Yes.
2063. Q. Because they gave evidence as former of Brexton? A. I am talking about the Company's cause—those who gave evidence for the Company.
2064. Q. You said the men promoted by the Company were not qualified for it? A. I say that.
2065. Q. Do not you say that they have given evidence on behalf of the Company? A. I know was, at all events.
2066. Q. Do you suggest that he has been promoted improperly because he gave evidence? A. I do not know. I had the judge say that.
2067. Q. You will not say it? I will not say it.
2068. Q. You think it? A. I think it. I had the mine judge myself once. I could have had a good job there if I had been the same as some of them.
2069. Q. Do you say that they gave untruthful evidence for the Company? A. I have nothing to do with it.
2070. Q. Do you think it? A. I know plenty about the men. I will not have anything to do with the mine.
2071. Q. Do you think it was a reward for giving untruthful evidence? A. My personal opinion is that the men who have the positions there are not qualified for them.
2072. Q. Do you think they have been rewarded improperly? A. I think so myself.
2073. Q. Because of untruthful evidence? A. Yes it is only a personal thing.
2074. Q. You know rope road No. 4 Leth, off No. 1? A. Yes.
2075. Q. You know No. 4 Right, off No. 1? A. Yes.
2076. Q. Did you examine the place to see where the fire was? A. Along the travelling road.
2077. Q. You did not go into the rope road? A. No.
2078. Q. Where the signs are? A. No.
2079. Q. There was an area of lower in the travelling road? A. No.
2080. Q. Between No. 4 Left and No. 4 Right, you do not know what was in the mine in it? A. I have no idea what the signs were, I did not see it.

- 3292 Q You saw the explosion began where this cross is on the plan, was it? A Yes.
3293 Q Did you see it? How did it go? A I took it from the ship lying in the circle. I found it
cross the one through close to the deck, not towards No 1 main level. It came out of No 1, upwards
to Main's cut through.
3294 Q Did you know it from Arthur's to No 1 main level? A The ship was blown short in all di-
rections, anywhere.
3295 Q From Arthur's place to No 1 level, did you have the explosion or not? A We traced it as far
as the tunnel.
3296 Q From Arthur's place, what did you see? A Very little damage done.
3297 Q Did you see anything between Arthur's place and No 1 main level? A I saw falls, and timber,
Main's about.
3298 Q Where? A Towards the tunnel.
3299 Q Toward No 1 main level? A It was blown in all directions.
3300 Q Is that short space? A There was not much damage done at all, but it was in all directions.
3301 Q What did you see in No 1 main level? A A little damage, only a beam between No 1 level
and No 2 Right.
3302 Q How far you see how the beam went? A It simply came down towards the tunnel.
3303 Q Which heading? A Down the main tunnel.
3304 Q Which heading? A Down the main tunnel.
3305 Q There was nothing in the back heading? A I did not go into the back heading there.
3306 Q You saw a fire started on the plan at the 4th level, the heading road. You said as there was in
down there of any level? A In the upward.
3307 Q How long was it in your knowledge without a doubt? A Up to a month or five weeks before
the disaster.
3308 Q What happened five weeks before the disaster? A I was working there.
3309 Q You were not in the risk left open before the disaster? A No.
3310 Q You do not know what was done in those five weeks? A No.
3311 Q You say that after the explosion occurred there was no doubt there still? A No, there was not.
3312 Q You say that you saw timber started at Arthur's place. What do you mean? Do you mean it
had the same appearance as if it had been burnt in the back? A It was scorched.
3313 Q Scorched is not charred? A It had all the appearance of having been in the flames.
3314 Q How much of it? A About half way down from the roof.
3315 Q All round? A No, on one side.
3316 Q Do you know that the props in the Kumble Main have come from the back? A Yes.
3317 Q They may have been burnt before they came into the mine? A Yes, but not like that.
3318 Q They were charred from some other cause than a fire in the back? A Yes.
3319 Q Anybody could see it? A Yes.
3320 Q Was there about 3 feet of it? A Yes. It was only on the one side.
3321 Q Which side? A It was on the side facing Arthur's place—towards the water.
3322 Q Are those the only ones you saw? A I did not see any more like that.
3323 Q Do you remember which side it would be on—the side facing No 1 level, or the other side?
A It would be on timber side. It was being towards the water.
3324 Q Was that towards the face? It would be facing either No 1 level or the opposite way—
towards the face or opposite the face? A It was on the side nearest the gulf. Directed to the water,
opposite where the roof fell.
3325 Q The charred side of the timber reaching the level? A No, not facing the level.
3326 Q Was it at right angles with it? A It would be at right angles to it.
3327 Q Did you see any paper lying near Arthur's place—paper not burnt? A No, I could not
see that I did; I saw an old coat.
3328 Q With paper on the pocket? A It seemed to have been burnt.
3329 Q Did you see the paper was burnt? A The coat looked as if it had been burnt.
3330 Q Did you look at it? A We had not time. There were a good many people there. The
company was too hurried.
3331 Q You say that thousands of tons of coal have been buried in the 4th Right, as the roof has
fallen in? A The roof has fallen all round.
3332 Q Has it been jammed up tight? A Yes. The stands have been left as I believe there are
thousands of tons buried there.
3333 Q Tell us what you know of pillars being buried? A There was a pillar 14 yards long.
3334 Q That has been buried for years? A There are others besides.
3335 Q You have not been there since? A There have been men working there since I was there.
3336 Q You say that these went in into No 4 Right from No 1 level. Did you see it? A No.
3337 Q Did you see anything to support that theory? A No.
3338 Q Is it guess work? A, Yes, guess work.

Cross-examined by Mr. Lyngby.—

- 3339 Q What is the name of the man you say was promoted after giving evidence in the Boardroom
case? A Loringstone. It is a short name.
3340 Q Do you know whether he passed an examination? A No, he never saw you in his life.
3341 Q Do you know what exposure he had had in working? A I do not think he had had any
sampling of Mount Kumble.
3342 Q How long was he working there? A Some years.

Further cross-examined by Mr. Wades.—

- 3343 Q Give us the names of the men who were improperly promoted by the Company? A Loring-
stone was one.
3344 Q Is he the one who was improperly promoted? A I do not say that, I say he got the job
afterwards.

3034. Do you say he was improperly promoted—any way or no? A I say that because he had not the qualifications.

3035. Q. Is that the reason? A That is the reason.

3036. Q. Do you say that it was because he gave evidence for the Company? A No, I did not say that I said that I thought so.

Cross examined by Mr. Bruce Smith —

3037. Q. What do you mean by saying that you had some judges yourself? A At the time of the Arbitration Court we went to support the Mount Kembla Miner and we had a lot of trouble in getting the Court to support our defence plan.

3038. Q. What do you mean by a different place? A An adverse working place. And we had a few words about it.

3039. Q. Who was "we"? A Me and Mr. Nelson and Mr. Rogers. We had a few words about it.

3040. Q. That was the last interview? A That was when Mr. Rogers gave me the judges. He gave me the judges not to go to that place at all, as much as to say you are not to go. He gave me the judges in a year. That was, if I tried to be brought over I could have been.

3041. Q. That is your idea, or your interpretation? A Yes. I took it from that that he meant something.

3042. Q. Did he say anything? A No. But he said this. We had a few words and he said, "If you are going to take a party to inspect the worst of the place I am going to take them to the best." We got regularly wild over it.

3043. Q. Was this before he gave you the judges? A He gave me that before, but I would not take it.

3044. Q. What was the date of this visit? A I think it was three weeks before the disaster when the Court visited the mine.

3045. Q. There was only one visit. A Yes.

3046. Q. It was then that the judges took place, and that that statement was made by Mr. Rogers—first if you showed them the worst place he would show them the best? A Yes.

3047. Q. When did the judges take place? A On the same day.

3048. Q. How long was there between the judges and the conversation? A It was on the same day altogether.

3049. Q. That is what you mean when you say you had the judges yourself? A Yes.

3050. Q. What did Nelson say? A Mr. Nelson, on the contrary, over me down that a man had been paid \$100 for the work.

3051. Q. Before Mr. Rogers? A Yes. Mr. Rogers said, he would make no go before the men and women. I got the idea that to prove that a man did not get it.

3052. Q. Did you show the tickets to Mr. Rogers? A I showed the tickets to the Court.

3053. Q. Did this making question come before the Court? A No.

3054. Q. Did this conversation, first you men state took place between Rogers, Nelson and yourself, some before the Court? A No. But the prices were all there, and Mr. Wade was there too.

3055. Q. Was the conversation at the residence of the Arbitration Court? A They were all within hearing. We were on the site. Everybody could hear the conversation.

3056. Q. Anybody could hear it? A Yes.

3057. Q. You tell the Court that Mr. Rogers said within the hearing of the members of the Arbitration Court "If you take them to the worst place I will take them to the best"? A Yes.

3058. Q. He said that aloud and so their hearing? A Yes.

3059. Q. He did not say anything which he wanted to conceal from them? A Mr. Rogers did not want them to see those two places.

3060. Q. You do not mean to suggest that when Mr. Rogers made this statement as to what he was going to do—that he made it behind the backs of the Court or another person? A He said it in their presence. They could hear it.

3061. Q. Did Nelson say anything about that time? A Nelson on the following day went and got a paper signed, wrote it out, for Jacky Oliver and Riddell, that they had received a pound, when they had not.

3062. Q. Did you see it? A They refused to do it.

3063. Q. That did not come to the Court? A No, it did not come to the Court.

3064. Q. Are they about here now? A They are here now. They received nothing at that particular time.

3065. Q. Did Rogers say that the men had received the pound notes? A Yes.

3066. Q. You said that pillars must have been laid upon top of thousands of tons of coal—is that an inference? A I know of them myself, besides the stacks.

3067. Q. What was the measurement? A Six yards.

3068. Q. By 20 yards long? A Yes.

3069. Q. And 2 yards high? A Yes. They wanted me to get the pillars put on dangerous ground, but I refused.

Examined by Mr. Robertson —

3070. Q. About your knowledge of the methods of getting out of Yallahie? A They work there on the longwall system.

3071. Q. You referred to some railway where it is necessary to have large pillars to support the roof? A It is always necessary to have large pillars, especially when the travelling ways or rope roads are anything like that.

3072. Q. I suppose you know the greater the depth of the mine the larger the size of the pillars? A Yes.

3073. Q. I think you said that they left pillars 20 yards square? A I do not think I said that.

3074. Mr. Bruce Smith: I told him of his knowledge of their events.

3075. [Where?] I said I knew them to be 40 yards square.

3076. Mr. Robertson: Q I suppose they have been to work coal in Yallahie, and how to ventilate a mine? A Yes.

3077. Q. Were the results as good as that mine there? A Yes.

Witness—J. Stiles, 10 January, 1908

3007. Q So that with 70 yard pillars and 70 yards of breathing there was no difficulty in obtaining ventilation? A They put up hatches where required. They are particular in Yorkshire.
3008. Q But even in those places it is not necessary in all cases to have hatches, and there is no difficulty in ventilating 70 yards with brattice? A Well, it is such a long time since that I have pretty well forgotten.
3009. Q I think you said you had not seen Mr Rogers more than five times in the year? A Yes, in my working place.
3010. Q You said that the Managers should give more attention to their duties,—do you know anything of the duties of Managers, what they have to do? A No, I am not well acquainted with their duties.
3011. Q Mr Rogers' name may be fully employed? A It may.
3012. Q If it is fully employed, he cannot give any more attention to the mine, can he? A I think it should find time to go in there at least once a month.
3013. Q You cannot say whether his time is fully employed or not? A I cannot say.
3014. Q It may be? A It may be, but I hardly think so.
3015. Q Now, you have referred to a place driven from 70 to 100 yards, and the brattice was returned, and the place remained without brattice for three months,—do you know whether any gas accumulated? A I could not tell you. I would not like to go and see.
3016. Q If any gas had been given off by the coal, I think there was every probability that it would have made itself felt? A Yes.
3017. Q Then either brattice was not required or the coal did not give off gas? (No answer.)
3018. Q Talking of the removal of the air, do you say it was due to the brattice being let go down? A Yes, ventilating all the fumes out on the surface right until the following Sunday night.
3019. Q I understand you to say that the air might fall off through continuous to the brattice? A Yes.
3020. Q The same thing would apply to the fan? A Yes, if it was not attended to.
3021. Q They both seem to be attended to? A Yes.
3022. Q So far as mechanical ventilation is concerned you are as likely to get it with a brattice as with a fan? A No, I am in favour of a fan.
3023. Q But if you have no situation given to it it will not work? A No, but it will not require a track road to keep the fan going. I think brattices are out of date.
3024. Q I think you said that it was the Chief Inspector duty to examine for gas,—if you know of instances of gas, would it not be your duty to see that the Chief Inspector? A Unfortunately at Mount Kembla we have been for several years without Chief Inspectors.
3025. Q How is that? A We can never get none of standing for that work.
3026. Q Did not Mr Wynne examine? A Two or three years ago.
3027. Q How he not examined lately? A I do not know, to be sure.
3028. Q Is it not your own fault if the place has not been examined? You can appoint a man at any time? A We have the power to appoint them from time to time, but we do not seem about taking the responsibility.
3029. Q What men? A No man ever about taking the responsibility of Chief Inspector.
3030. Q Why? A It requires a certain amount of ability.
3031. Q Are there not any on the State Court? A I am speaking about Mount Kembla.
3032. Q You are not bound to appoint them from Mount Kembla? A We have them from the district.
3033. Q Is not Mr Wynne competent? A I think he is a competent man.
3034. Q Is it within the Chief Inspectors, you say report to the Government Inspector, can not you? A You can do lots of things if you want to get the work.
3035. Q Do you think the Government Inspector would change the name? A I would not think some of these. I would not trust my own brattice.
3036. Q You have little confidence in human nature? A I have suffered enough through it, and I have good reason, to be sure.
3037. Q With reference to the case at No. 4 Left. For anything you know the ventilation may have been controlled by a door elsewhere? A I could not say that.
3038. Q Was there a door at Stuffed's Fan or Powell's Fan? A I do not know that I ever saw one.
3039. Q In taking out pillars I suppose you are aware that in the last registered pillars woods must be left to support a bed roof? A A bed of the coal might be got that is not got here.
3040. Q What is the Yorkshire practice? A They do not leave any woods in Yorkshire. All the coal is got even to the roof. They work on the longwall system there.
3041. Q Then there are no pillars? A In some parts they work with pillars too.
3042. Q You say that they remove the pillars? A Yes, and they get all that is to be got out of it. They burn as many as fifty or six hundred workings at night.
3043. Q You say that they get the pillars without woods? A I never knew them leave coal at all.
3044. Q They work with absolutely no bed? A Well, with very little bed.
3045. Q What does it mean, does it not mean they leave strata? A Well, I never knew them waste coal. I am attached that coal is Mount Kembla is being lost needlessly.

Examined by Mr Stiles —

3046. Q You have been on the night-shift when the Mining Deputy has been at work? A Yes.
3047. Q What method did the deputy employ? A The night deputy would go on along with us. We would go as far as Joseph's Flat or Matt's Flat at Birkbeck at night. When we got there the deputy would get to know the number of pillars where we had to sit down, from No. 1 to 52, and so on. He would go round, to the next number, but sometimes I have seen him go into the place before the deputy had got there, and we would have to withdraw.
3048. Q Have you seen them examine the face? A I have seen them examine the face of the brattice, but not climb on to the waste.
3049. Q What did he do? A He would have a small Barry lamp, and he would try both corners.
3050. Q What about the waste? A I have never seen a deputy, said Mr. Hobbins man, climb up to the waste to examine for gas.
3051. Q Have you been working there when they have been examining a waste? A I could say then occasionally.
3052. Q What would they do? A They would walk up to the face, and put on it the tip of the mouth, but they would never get on to the top of the waste.

- 14122 Q Would they never make any effort? A I never saw them make an effort.
- 14123 Q Where would they put the lamp? A Up in the face.
- 14124 Q I am talking about the waste? A I have never seen them examine the waste.
- 14125 Q Have you ever been present when an examination of the waste was made—there are two circumstances made? A It is the right circumstance that I am talking about.
- 14126 Q Have you been present when they have been doing an examination of the waste workings? A I have been there on the daytime, but I never saw the deputies examine anything in the daytime.
- 14127 Q There are two circumstances which have to be made—a night examination of the waste used and the workings. There is a weekly examination of the waste workings. Have you ever been there when an examination of the waste workings was made? A No, not about the waste workings. I understand the question now.
- 14128 Q What does the deputy do when he comes into the face? A Oh, stand by the stop, and say "How are you getting on, old chap?" Just a few words, and away.
- 14129 Q Just ask you how you are getting on? A Yes — on everyday performances.
- 14130 Q Did they go round every day? A Oh, yes, the day deputy.
- 14131 Q That is all you ever saw them doing? A Yes.
- 14132 Q Now, do you know whether the officials know of the air being passed on the occasion of going to the stop? A Yes, the night deputy knows, at 4 o'clock the following morning, before getting to work.
- 14133 Q Did they stop you? A No.
- 14134 Q Who knew? A Deputy and McMurree.
- 14135 Q Was there anybody else who knew? A I was not a constant hand at the stone work.
- 14136 Q Did the Manager or underground manager know about the air being reversed? A I cannot say.
- 14137 Q Were you not prevented from going on? A No.
- 14138 Q Although they knew the air was reversed? A You could not do it at the mouth.
- 14139 Q You advocate that a Manager should hold a certificate only by examination? A Yes.
- 14140 Q And do you consider that if the Manager is to be qualified he should give more attention to managing mines and less to clerical work? A Yes.
- 14141 Q Now, taking of the Chief Inspectors, do you know anything about Mr. Wynne's qualifications? A Only what I have heard.
- 14142 Q Have you had any experience, at the miners' meetings, of the difficulty of getting people to accept this position? A Yes.
- 14143 Q What are the reasons? A Several reasons. One reason is because they have not the qualifications, and another reason is that if it was not to put down what is correct he would lose his hold.
- 14144 Q If they returned something black in the eyes of the Manager, would they be demoted? A Yes, I know of a man who got demoted in the Vale of Glyneddolany in Llanfyll.

Re-examined by Mr. Robertson:—

- 14145 Q Do you say that the deputies who were appointed to examine the places every day in the mine did not examine them after 12 o'clock? A Do you mean the places where the stone was picked up?
- 14146 Q You said that as many as twelve places were missed? A I said that the first time they went into the places they would put the day of the month there at 12 o'clock or 12.30, and it would not be repeated afterwards.
- 14147 Q What time do you start work? A We start inside the tunnel at 8 o'clock.
- 14148 Q Where would you leave off? A Seven o'clock in the morning.
- 14149 Q You would only be working in your own place? A In different places.
- 14150 Q When you were in drag-stone, you could only be doing it in one place, and not in a dozen places? A Yes. I would be working in a dozen places in the one night.
- 14151 Q And the deputies made no further examination than that in the first instance? A Yes; that is quite right.

Mr. JONATHAN HAY was called and sworn, and took his place in the Witness Box, and addressed the Commissioners, and —

- 14152 I would like to make a statement before I am examined by Mr. Bruce Smith.
- 14153 Mr. Bruce Smith: I do not know whether the witness will give his evidence in the way that I want to arrange it.
- 14154 Mr. Hay: I might say that your evidence at the inquiry is being used here.
- 14155 The Witness: I have answered your evidence and my other with a view of preventing something in the future, and I would like to give them to the Court. I may say that I have written a statement summarizing my views.
- 14156 Mr. Bruce: If that is so, it would be just as well for the witness to be allowed to read it, and then the MS. could be handed to the Court.
- 14157 Q What is your name? A Jonathan Hay.
- 14158 Q And your occupation? A My general occupation is that of Lecturer in Mining, Geology, and Mining Surveying, and I have charge of Technical Education at the Glasgow School.
- 14159 Mr. Bruce: I think now you might read your statement.
- 14160 Mr. Hay: If we could go on with the examination of the witness now, the document might be made an appendix to the Report of the Commission.
- 14161 Mr. Bruce: I think it would be best for the witness to read it, and then we should know what it is all about. [Mr. Hay then read a written statement, which he handed up.]
- 14162 Mr. Bruce Smith: I would not that the witness would hand the statement to the Court, and that I may be allowed to have it brought to such review passages as I wish to quote. A great deal of it is a tissue of abuse, referring to people who occupy official positions, and the rest is a gross and unbecoming abuse of himself and details of reforms which have not been appreciated. Of course, it would have been

Witness—2 May 14 January 1908

been open to me, as I want from my passage to mention to those objected to the statements as being irrelevant, but I did not take that route, and I now ask that I may have the document, so that I can read the passage to which I object, and bring them before the Court in the morning.

2491 *Mr. Howe* : That document is not necessarily an affidavit as far as I am concerned, but it is a statement upon which the evidence of Mr. May will be given, and it was, in fact, arranged that it should be presented to the Court.

2492 *Mr. Howe* : The only thing is whether anyone else wishes to have the opportunity of looking through it.

2493 *Mr. Wolfe* : I have no questions to ask.

2494 *Mr. Lyndell* : I would like to see the document myself.

2495 *It was then suggested that Type-written copies of the document should be handed to Counsel as early as possible.*

[The Commission, at 5 15 p.m., adjourned to 10 o'clock the following morning.]

WEDNESDAY, 14 JANUARY, 1908, 10 a.m.

[The Commission met at the Court House, Wellington.]

Present—

C. R. H. MURRAY, Esq., D.C.J. (PRESIDENT).

D. A. W. ROBERTSON, Esq., COUNSELLOR.

D. RITCHIE, Esq., COUNSELLOR.

Mr. Bruce Smith, Barrister-at-Law, instructed by Mr. Wood, Crown Solicitor's Office, appeared on behalf of the Crown.

Mr. A. A. Atkinson, Chief Inspector of Coal-mines, assisted Mr. Bruce Smith.

Mr. A. A. Lyndell, Solicitor, appeared on behalf of—

(a) The representatives of deceased persons, who were, &c. (victims of the explosion);

(b) The employees of the Mount Kennedy Colliery (miners, who were, &c.);

(c) The employees of the Mount Kennedy Colliery (employees of the Mount Kennedy Colliery).

Mr. C. O. Webb, Barrister-at-Law, instructed by Mr. E. Curran, appeared on behalf of the Mount Kennedy Coal and Oil Company (Proprietors of Mount Kennedy Mine).

(Mr. J. Gault, Secretary to the Commission, was present to take shorthand notes of the evidence and proceedings.)

(The usual order was made that any person who expected to be called as a witness before the Court should retire from the Court Room.)

2497 *Mr. Bruce Smith* : I have had an opportunity, Your Honor, since yesterday, of looking through the statement of Mr. May's, and I am going to ask the Court to follow me for a moment while I point out certain passages in the statement. First of all, I refer to page 6 of the statement. On the seventh line it says "A proper system of Government in mine inspection would have prevented the explosion." The plan of the Dudley Mine which I herewith submit shows that the workmen were greatly deficient in, exactly the same detail as the Dudley Colliery. At the ventilation of the No. 1 and No. 2 headings was dependent on two single doors, as shown on the plan, either of which becoming damaged would have led to accumulation in No. 1 or No. 2 heading, where the explosion occurred. All the ventilation of Dudley depended on one single door.

2498 I submit that that evidence simply goes to show whatever upon this inquiry. If Mr. May were going to apply the facts of the Dudley disaster and the Bala disaster to the Mount Kennedy disaster, of course he is bound to contrast them in some way by showing some set of parallel circumstances. But this is simply a bold statement of law here, which is not in any way connected by law with the matter which is at hand before the Court now. It is merely burdening the evidence of the Court. If any member of the Court could say that there is a certain set of facts upon this matter, and by looking at the maps, which of course we are bound to take as part of this, I should have no objection to it. Your Honor says "A proper system of Government in mine inspection would have prevented the explosion." It looks very much like saying upon an opportunity to show a doubt upon the whole system of mine inspection at the time of these disasters, without connecting them with this disaster. The Court will understand that I would not for a moment attempt to show Mr. May from giving which evidence he chooses, however injurious it might be to the administration of the Department, if he only contrast it with the series of inquiries which the Court is appointed to look into. The Bala disaster was not years before the Coal Mines Act was passed, as pointed out by Mr. Wolfe. I make that passage therefore which I have read down to the word "door," and I submit that, and Mr. May is prepared to accept that that passage should be taken out of the part of the evidence at all events. I should propose that he take them out; and if he likes to give it up, in his oral evidence and so on, it is, then he may do so; but at present it should come out of this statement, which will go on as a complete document in itself, and I would suggest to the Court that it would be better to deal with these statements on by lot.

2499 *Mr. Howe* : It seems to me that the greater part of this is so far disconnected with the question before the Commission that it is very difficult to understand how it can be considered to be fairly relevant to the case. I was looking to see if there was any special suggestion afterwards as to verification, such as that statement of what happened in these mines was in any way connected. I do not think there is.

2500 *Mr. Bruce Smith* : There is another reason I might suggest, and that is for me to go through all the passages to which I offer objections, and then, if Your Honor and your other Commissioners are prepared with my agreement to waive further the document for the present leaving it to Mr. May to use it as the basis of his oral evidence. Now, to have it before him like most of mine. It will not preclude him from attempting to give any part of it, but it will leave it in his oral evidence.

(His Honor conferred with his colleagues.)

2501.

2475 Mr. Ayres:] Might I point out to Your Honor that if I am entitled to read myself of my address, from whatever source I may obtain, I would submit that that part of the evidence objected to by Mr. Bruce Smith is admissible evidence in it support of recommendations Nos. 7 and 10 from the Delaplace Board. Your Honor will note that the statement that "a proper system of Government mines inspection would have prevented the Buft's explosion," supports the recommendation for the possible inspection by the Inspectors with the hydrogous flame which was noted for and the statement that "all Buft's modifications of the 1881 and 1882 and 2 headings were dependent on less single shots," and that "all the should be furnished in substance" (Recommendation No. 10).

2476 Mr. May:] We determine that the best way in which to rule is this: that each party wishing this document as much as he chooses submit, for his own information, Mr. May should be admitted irrespective of the document, this document not being considered to be evidence of all sorts on account of its peculiar nature. Mr. May should be admitted first of all by Mr. Bruce Smith then by Mr. Laycock and by Mr. Wade, as fully as is my appeal to the Commission that he should be examined, but afterwards, finally, if anything which appears to come in on this document has not been touched upon, that Mr. May should have an opportunity of volunteering or doing; when, if it should turn out that that evidence is, in the opinion of the Commission, immaterial, of course it should not be admitted. It appears that it might not be so in case we give of the opinion of this Commission, or of the majority, but it seems to me at present, it ought to be read. Now will he be an opportunity of saying which is here, of putting any questions that you think appropriate to Mr. May when he is on the box.

2477 Mr. Ayres:] I was anxious to read having a disputation of all this matter, which is already done as evidence, by a number of questions from me.

2478 Mr. Ayres:] I think it will be shorter in the long run, and it will appear, certainly, on the notes it is put in, and there has to be put in. It is better to consider it if present in and put in. It has been copied out, but it can now be struck out of the evidence, and not be considered to be put in evidence. Mr. May can now go into the box and answer any questions that may be put to him.

2479 Mr. Bruce Smith:] I shall give Mr. May an opportunity of explaining anything that may be in here which I think myself justified in asking him.

Mr. JONATHAN MAY, previously sworn, was recalled and further examined as under:—

(This witness was called at his own request, and the Commission asked Mr. Bruce Smith, as a matter of convenience, to conduct his examination as chief.)

Examination by Mr. Bruce Smith:—

2479 Q. Your name is Jonathan May? A. Yes.

2480 Q. And your occupation is at present that of Lecturer on Mining, Geology, and Mine Surveying? A. Yes.

2481 Q. And you have charge of Technical Education in the Liverpool District? A. Yes; and I am a Mining Engineer and Colliery Manager by profession; and I hold a certificate of competency under the Imperial Act.

2482 Q. You may have a copy of this (the statement handed in by Mr. May on the previous day) before you? A. Yes.

2483 Q. The evidence you are about to give is based on personal observation in the mine? A. Yes.

2484 Q. Supported by nearly forty years' mining experience? A. Yes.

2485 Q. Including the best practice of gas-testing, and do not know what that means? A. "Gas-testing" is the production of air currents.

2486 Q. I am not talking of the nomenclature of the words, I am talking of the way the words are put here? A. The best practice of gas-testing.

2487 Q. The word of "safe" not—"making the best practice of producing and distributing air currents in the gaseous means of the North of England and a fifteen years' experience and observation of the weak points of our Colliery ventilation? A. Yes.

2488 Q. And with an intimate acquaintance with general mining literature and full descriptions of coal dust and explosive experiments, also with the actual phenomena bearing up colliery explosions caused by the Imperial Mine Office, and the transactions of different engineering societies?—that is what you want to say? A. Yes.

2489 Q. And I understand that you have made a careful analysis and correlation of the Buft, Stratton, Harrow, and Kumbia, disaster, with a view to suggesting certain modifications in the Coal Mines Act to prevent their recurrence? A. Yes.

2490 Q. Now, with regard to the Harrow Kumbia disaster, I think on the 31st of July you entered the mine with a party party by the travelling road? A. Yes.

2491 Mr. May:] I think a good deal of what Mr. May has put in this statement appears in his evidence at the inquest.

2492 Mr. Wade:] A page and a half of it does.

2493 Mr. May:] Yes.

2494 Mr. Bruce Smith:] Q. On the 31st of July, with a rescue party, you entered the mine by the travelling road, and reached a point in No. 6 road near the furnace door? A. Yes.

2495 Q. Now, what you saw when you made that visit was given by you before the Coroner's Jury? A. Oh, it is very brief.

2496 Q. It is pretty brief here—you know no more facts of this visit—that is, by personal observation—now then you did then, do you? A. Not by personal observation.

2497 Q. That is what I mean? A. Oh, no.

2498 Q. Now the conclusions with regard to the contributing causes of the accident I am now here about to make these heads? A. Yes.

2499 Q. I mean, you state in the conclusions, first, that the working here gave all the danger? A. Yes.

2500 Q. You state in a second conclusion, that the leads being driven 100 to 250 yards with benches were a great source of danger? A. Yes.

Witness—8 May 19 January, 1906

2497. Q "For the following reason," you say, "(a) The deputy's examination could be some hours before the witness entered his place"—what do you mean by—"could be"? A. There is only one examining deputy.

2498. Q How do you know that? A. In that district—No 1 district—there were two examining deputies for the whole pit.

2499. Q For the whole pit night and day? A. No, two night deputies—two examining deputies.

2500. Q Two day examining deputies? A. Oh, no, the day deputy does not examine.

2501. Q Very well, then—two examining for the whole pit? A. For the whole pit.

2502. Q Now, what do you mean by saying that "The deputy's examination could be some hours before the witness entered his place"? A. He had to examine half the mine, and then go and meet the men at 6 o'clock.

2503. Q And you mean to say that the witness goes would be examined some hours before the witness entered there? A. The witness goes.

2504. Q I thought that was what you meant,—a, account of the large amount of examining he had to do, there would be examined first would only have been some some hours before the men went to work—that is your view about it? A. Yes.

2505. Q Then I understand you to say that, as he only took a safety-lamp with him, he could only detect gas when it reached 2 per cent? A. Yes; 2 per cent to 10 per cent.

2506. Q Then you say that "1 per cent of gas with a blow-out shot, as at 12 o'clock, is well known to be dangerous"? A. Yes.

2507. Q And you know when the blow-out shot at 12 took place? A. No.

2508. Q You have heard, have you not, that it took place some days before? A. I could not say.

2509. Q Then you do not know of your own knowledge that it took place within a month of this accident? A. I think it was some time previously.

2510. Q I hope you are more accurate with your recollections than you are with my questions,—you do not know of your own knowledge that that blow-out shot did not take place so far back as a month before the accident? A. My impression was that it took place within twenty-four hours of the explosion.

2511. Q I asked, you if you knew your own, and you said you did not know—and I now ask you if of your own knowledge you are aware that it took place within even a month before? A. Not of my own knowledge.

2512. Q You do not know,—you have got no impression on your mind? A. Yes.

2513. Q Do you know of any evidence that has been given before the Court and the Coronor's Jury as to that blow-out shot? A. I think I heard Mr. Atkinson state that the blow-out shot took place 12 had no significance in his mind as regards the explosion. And as where I got my impression.

2514. Q I am asking you whether you remember any evidence before the Court and the Coronor's Jury as to the time at which that blow-out shot took place? A. That is the only thing in my mind.

2515. Q That has not anything to do with it—that is only as to whether it has significance? A. Yes.

2516. Q Then you do not know anything as to the 12 shot? A. Excepting that there was a blow-out shot, showing that a blow-out shot was possible and was dangerous under the conditions.

2517. Q If it had taken place at the same time when 1 per cent of gas was present, it would be dangerous? A. Yes.

2518. Q Now, what is your authority—and I ask that for information,—what is your authority for saying that 1 per cent of gas is dangerous in the presence of a blow-out shot? A. All the coal-dust experiments.

2519. Q Would you point to one, I would like the Commission to have my eye placed before them—you have not mentioned coal-dust yet, do you see? A. The deputy's examination could only detect 2 per cent, to 10 per cent of CH₄, whereas 1 per cent of gas with a blow-out shot is dangerous.

2520. Q There is nothing about coal-dust there,—is there anything else about coal-dust in that statement? A. There would be in my mind.

2521. Q Is there anything about coal-dust in that statement—you see? A. There is nothing about coal-dust in that statement.

2522. Q Now you repeat coal-dust—you have just now told the Commission that 1 per cent of gas, such as you could not find, with a safety-lamp, is dangerous, and well known to be dangerous—and I ask you for your authority for that? A. The Coal Dust Experiments Commission.

2523. Q Can you point to the passage,—have you not it with you? A. Oh, dear no. I have almost forgotten about things; it is in many years ago that we were done.

2524. Q And you do not think it is worth while to refer to for the information of the Royal Commission? A. I am sure they will have it.

2525. Q I understand you to say that the danger would depend upon the presence also of coal-dust? A. Absolutely.

2526. Q I believe you have made a calculation as to the number of yards of explosive atmosphere in certain levels which would not be detected under certain conditions? A. Yes—1,000 to 2,400 cubic yards.

2527. Q Will you just repeat that statement? A. Yes. It is "1,000 to 2,400 cubic yards of an explosive atmosphere in several levels which could not be detected by the examination permitted, and only required a blow of gas as soon as the occurrence of a fall, to raise it to an explosive condition, without a shot."

2528. Q That is with a light, I suppose? A. With a naked light.

2529. Q But you have not said so (in the statement);—the naked light is an important element in some of these things? A. The naked light was in the levels.

2530. Q Then we can say, "with a naked light"? A. "Without a shot," it says; therefore we can say it is a naked light.

2531. Q Look at the next. You want to say something there. "The mine was an old one," you say? A. Yes.

2532. Q And "the air was dependent on a large number of" you say, "probably slack stoppings and doors." Are you able to go further than that? Did you estimate some of these stoppings yourself? A. I estimated some of the stoppings which were back with rubbish—the usual rubbish stoppings.

2533. Q "The mine was an old one, with the air dependent on a large number of probably slack stoppings and doors, the air current was produced by a furnace which was approaching, it had not the usual, the point of inadequacy," you want to say that? A. Yes.

3234. Q And you want to say that "The more serious danger against"—just look at that. Is that the proper reading? A The more serious danger of the more ventilation.

3235. Q "The more serious danger of the more ventilation was its liability to great fluctuations from two causes?" A Yes.

3236. Q "First the quantity of air produced by a furnace is as the square root of the difference between the temperature of the upper shaft and the weight of descending shaft." For illustration, assuming 20,000 cubic feet of air passing through the mine about 3 a.m. with an inlet temperature of 10 degrees and the outlet at 70 degrees, or a difference of 60 degrees? Then there is a fallacy? A Yes.

3237. Q "If the inlet temperature were increased to 70 degrees about noon, this would reduce the 4 breezes to 43 degrees, and the quantity of air passing would be reduced as the square root of 31 degrees?" A It is the square root of 43 degrees, so it is 5,500 to 44,000.

(The proportion is stated in figures thus—44,000 : 5,500 :: 43:31.)

3238. Q A reduction of 13,000 cubic feet or 50 per cent? A Yes.

3239. Q You wish to make that statement? A Yes.

3240. Q And you submit that as throwing light on the accident? A Only as an illustration. The quantity of air might be very much less than 45,000, or but the quantity of air might be almost reversed under those conditions.

3241. Q Did you ever say anything about the air being reversed in this mine prior to the appointment of the Commission? A About the air being reversed?

3242. Q Yes, in your evidence before the Counsel and the Coroner's Jury? A I know them that—(Interupted).

3243. Q That is not my question? A I have not said so.

3244. Q I ask you did you before the Counsel and the Coroner's Jury say anything about the air being reversed in this mine? A Oh dear no.

3245. Q Then you went on to say that, "These two phenomena are well known to practical men along the coast?" A Yes. We have only quoted one.

3246. Q Which is the second? A The second is that "strong westerly winds may occasionally even reverse the ventilation", which is a very serious matter.

3247. Q Did you ever say anything about strong westerly winds possibly reversing the ventilation, when you were before the Counsel and the Coroner's Jury? A I do not remember.

3248. Q Then you go on to say—"The air being taken past the edge of the small gasses near the face so to speak light, in view of the difficulty of extinguishing or containing anywhere but their edge, was another serious source of danger?" A Yes, a very serious source of danger.

3249. Q That is not accurate? Is it? A Yes.

3250. Q Would you mind telling me what that means? Oh never mind, I will not trouble you. It will be understood by "practical men on the coast." Then you go on to say "between Stafford's gasses hard and Morris's hard." (Interupted).

3251. Mr. Haines [That is meant for Morris' hard.

3252. Witness [I always say Morris in that case, but I think it is Morris. Your Worship.

3253. Mr. Bruce Smith [Q Between Stafford's gasses hard and Morris' hard there were several places which clearly suggested all the conditions of an explosion, but I believe the explosion occurred through the doors on which the ventilation of the face workings of No 1 left between Morris' and Stafford's gasses hard becoming damaged allowed the gas to accumulate in No 1 mine and back heading, that being the highest point in the workings, and was ignited by Morris' or his men's naked light? You wish to say that? A Yes.

3254. Q "The statutory direction of the faces and time was from the face of No 1 heading straight down No 1 rope road, the first lateral expansion of these and there being work between the face and the 10-ary gate?" A Yes.

3255. Q "The last taking on heading near the face showing distinct evidence of being traversed by flame and fire and where flames and men worked?" A Yes.

3256. Q That is all you have to say about the conditions that you have drawn? A These are my conclusions. Yes.

3257. Q When you were examined before the Coroner you marked a plan did you not? A Yes.

3258. Mr. Haines [It would be as well to get this sentence into grammatical form.

3259. [The sentence was then altered to read as follows.—"Strong westerly winds may occasionally even reverse the air current. The air being taken past the edge of the small gasses near the face so to speak light, in view of the difficulty of extinguishing or containing anywhere but their edge, was another serious source of danger. Between Stafford's gasses hard and Morris' hard there were several places which clearly suggested all the conditions of an explosion, but I believe the explosion occurred through the doors on which the ventilation of the face workings of No 1 left between Morris' and Stafford's gasses hard becoming damaged, and that allowed the gas to accumulate in No 1 mine and back heading, that being the highest point in the workings, and that that gas was ignited by Morris' or his men's naked light?]

3260. Mr. Haines [That makes it intelligible.

3261. Mr. Bruce Smith [Q You come now to "Suggested Conditions Not Accepted?" A Yes.

3262. Q "Before stating the amendments to the Coal mines Act which I believe the safety of our mining operations imperatively demands, I would like to refer to some colliery explosions and disasters in New South Wales, upon which the suggested amendments are principally based. In the Ball's disaster all the conditions of the mine pointed clearly to an explosion, as shown by the plan I herewith submit?" A, the gas went the right way.

3263. Q No, because there was no doubt about the Ball's disaster being caused by an explosion? A Yes, and any other case under the same conditions would have an explosion.

3264. Q I am only dealing with what you said. Would you like to add to that?

3265. Mr. Haines [Mr. Bruce Smith, I think you are, perhaps, losing sight of the decision of the Court that this statement is not supposed to have been said anywhere.

3266. Mr. Bruce Smith [I quite understand that your Honor.

3267. Q What do you want to add to that? "In the Ball's disaster all the conditions of the mine pointed clearly to an explosion as shown by the plan I herewith submit?" A And an explosion would have occurred in any mine under similar conditions.

Witness—2 May, 24 January, 1898.

2508. Q. Then you go on to say that "the presence of gas was well known to the workmen" in the Duff Mine, and Francis Crosswell's evidence and cross-examination by the (Duff) Commission shows how frequent and how easy it is for workmen and foremen to know of the existence of gas and dangerous conditions in a mine, and yet be utterly helpless to prevent an explosion? That is what you want to say? A. Yes.

2509. Q. Now, you went to say that "a proper system of mine inspection would have prevented the Duff explosion"? A. Yes.

2510. Q. Would you just tell the Commission how you arrive at that conclusion—in shortly as possible? A. (Witness explained to the Commission a plan of the Duff Mine, by which he illustrated his opinion. The air in travelling in the mine passed twice the Duff Mine plan. Where Nos. 2 and No. 3 headings are situated to the north-east there are two doors, one door from the main road, and a door in a cross-cut, and the air is dependent upon these two doors for ventilating the heading where the explosion occurred. The air is compelled, you see, to go up there (pointing on the plan).

2511. (The Miner.) Q. There are single doors? A. Single doors. Either of these doors being left open, or both opened for the ready or the passage of air, it cut off the air from No. 1 and No. 2 headings, and left those two headings directly subject to an explosion of gas. The coal from the vicinity of heading No. 2 and 3 used, he never cut through the door in the main road, and at every passage of the coal the air was cut off from the other place, the No. 1 and No. 2 headings, where the explosion occurred. Gas was accumulated to the loading of the marketing, currents of a geyser mine would have at once put his finger on that. That door should have been duplicated.

2512. (The Miner.) Q. You were not in the State then? A. No.

2513. Q. You were not here? A. No, I was not here then.

2514. (The Miner.) The Commission was very strongly impressed before this evidence was given at all with the possibility of double doors making such conditions as these, without going further into the question, and they are hardly worth while to know of. You do not dispute it, I understand, do you, Mr. Bruce Smith? You do not yourself dispute the explanation, I presume, of double doors under these respects of conditions of ventilation, such as Mr. May is describing.

2515. (The Miner.) I think Mr. Atkinson favors the double-door principle certainly.

2516. (The Miner.) Yes.

2517. (The Miner.) I think he would probably include that in his recommendations.

2518. (The Miner.) So I should imagine.

2519. (The Miner.) But this does not go on at any length here, your Honor, so that we need not make a question out of that part of it.

2520. (The Engineer.) May I take it that I need not call any further evidence in support of the recommendations concerning double doors (No. 10)?

2521. (The Miner.) Probably it will not be necessary to do so.

2522. (The Miner.) Q. Following on that, Mr. May, you wish to say that all the ventilation of Duffley Mine dependent on one single door? A. That was the plan of the Duffley Mine when I last visited it, and that the ventilation was generally defective in nearly the same extent as the Duff Mine.

2523. (The Miner.) Do you wish to have that part, your Honor? A. It is a repetition of the last evidence.

2524. (The Miner.) It is not necessary to labor the question. I understood now that the Duffley Mine suffered from the same defect.

2525. (The Miner.) All the ventilation of Duffley depended on that one door. (Witness pointed out the door on the plan of Duffley Mine.)

2526. (The Miner.) Q. That is the single defect as you found in Duff? A. Yes, exactly.

2527. (The Engineer.) It did not all depend on that one door. It depended on it in a large extent, but it would not affect the ventilation here and there (pointing certain portions of the mine on the plan).

2528. (Witness.) As soon as that door was open the air would shoot down here (indicating a point on the plan).

2529. (The Miner.) Q. Mr. May simply mentions to the Commission that the same mine which was closed in the Duff explosion was closed in the Duffley explosion, and you say that it was because there was only one door where it should have been placed? A. Yes. It is on these two points now that I say that a proper system of Government mine inspection would have prevented the Duff explosion, and also the Duffley explosion.

2530. Q. Now, among the suggestions which you make for amendments to the Mines Act is this, under the heading "Agent or Viewer": "In any mine where a consulting engineer, surveyor, agent, or managing director, or other person, has power to give directions as to the mode of conducting the works of a mine, either where or before present, he shall enter on such directions which bear on the ventilation, method of working, or coal dust prevention, in a book to be kept at the mine for that purpose." That is a suggestion you make? A. Yes.

2531. Q. And you suggest also that "no mine shall be published." What do you mean by the "mine" there? A. The "mine" it should be. In every case the name of the person—

(Interposed.)

2532. Q. "It should be published in the special rules, and the published rules to be read into the mine should be signed?" A. Yes. I might add that that was obtained from the Mines Bill which Mr. Rogers and another Commission of us.

2533. Q. Yes, I know. Now, under the heading of "Managers" you suggest that the certificate of service should be abolished? A. Yes.

2534. Q. Is that with regard to the future or the past, or both? A. Well, I think — (Interposed.)

2535. Q. Existing managers who have a service certificate—in you propose that that should be abolished? A. Give them a certain length of time to qualify.

2536. Q. Then you also suggest that in such mine where more than one manager and one under-manager's certificate of service has been granted the circumstances should be carefully ascertained by the Clerk? A. Yes.

2537. Q. Do you mean by the Commission? A. Yes. I mean by the present Commission, for the simple reason that there are men holding certificates of service that have obtained them by perhaps questionable methods. I might explain.

2538. Q. Yes? A. Under the English Act—the Imperial Act—when the Mines Act came into force the manager of the mine obtained a certificate — (Interposed.)

Q. By reason of his service? A. By reason of his service. In New South Wales the Manager of a mine obtained a certificate, and the underground manager.

Q. And the underground manager? A. Yes, he is a certificate of service.

Q. An underground manager? A. Yes, but you will find that in some cases there were more than one Manager's certificate granted, and that there were two or three certificates of service for underground managers.

Q. Are you aware that under the Coal Mines Regulation Act a provision was made that not only the men who were Managers at the time the Act was passed should have a certificate of service, but also that Managers who could show that they had lost the proof of service before that date, although not being in the mine at that time?

A. Yes, I think it was one point expressed within five years of the date.

Q. My friend asked? A. Yes.

Q. Are you aware of that? A. I am quite aware of the matter, and I am quite aware of places where either three or four underground managers' certificates were granted.

Q. Under what circumstances? A. I could not tell you. I know there is only one Manager and one underground manager in a mine.

Q. Do you mean to say that certificates were granted to underground managers who did not come within the provision of the Act? A. That is very interesting. But there was some very depression; and that the certificates should be recognized.

Q. That is not the question. I will take them separately. First, I will ask managers, do I understand you to tell the Commission that you knew of any case in which Managers received certificates of service who had not served for twelve months within five years previously of the Act? A. I have no knowledge of saying so.

Q. I do not want to know if you have any intention, but you do not say so? A. No.

Q. Do you wish the Commission to understand that any certificates of service were granted to men, on the ground of their being Managers at the time, who were not Managers at the time?

A. Yes, I understand Mr. May is not questioning the legal right of those Managers and underground managers to have obtained service certificates; but he is questioning the policy of the law in allowing them, under the law, to obtain the certificates under the circumstances—that is? A. I believe, Your Honor, the law has been stretched in certain cases.

Q. Is not your recommendation that certificates of service be abolished? A suggestion for a radical amendment of the Act? A. I have also suggested that the law should recognize it.

Q. My friend asked? A. I suggest that any of those who were held Managers' or underground managers' certificates have got them contrary to law? A. I could not say.

Q. That you do suggest that some men have got certificates who are not competent to hold the position? A. I do suggest that in the Globe Mine, Diamond, Walker and others that the number of certificates issued for Managers and underground managers in those mines should be recognized.

Q. My friend asked? A. I suggested the Court.

Q. I understand that there is no suggestion that any of these certificates have been granted illegally?

A. Yes, I understand. But do you suggest, Mr. May, as you apparently do here, that the law should be altered with regard to the granting of a law may be called service certificates? A. Even at the beginning should only have recognized the Managers and underground managers.

Q. That is not necessarily wrong and? A. And retrospectively only in certain cases. I know that certain men—(Interposed).

Q. You suggest the alteration of the law retrospectively? A. I should suggest to abolish—(Interposed).

Q. My friend asked? A. Existing laws? A. Yes, existing laws; but give them a chance to qualify.

Q. My friend asked? A. Do you suggest regularization by examination or regularization by proof of certain service, and also some proof of competency? A. I suggest regularization by proof of legitimate service, but particularly by proving an examination.

Q. But do you suggest a regularization by proof of certain service, added to some further proof, besides service, of competency, possession of a certificate, or apt? A. No. I prefer that certificates of service be abolished within a given time, and let those pass the usual examination.

Q. My friend asked? A. You suggest that the Manager of every mine shall exercise the working conditions of each working place at least once a fortnight? A. Yes.

Q. And so much often as the conditions may require? A. Yes.

Q. Then you have some suggestions to make with regard to the men concerned? That all air measurement records shall contain the quantity of air leaving the last man in the shaft? A. Yes.

Q. That in any mine attended by two men and still the temperature of the atmosphere be carefully observed on the day the air is measured, also the direction of the wind at the time of measurement is observed in the shaft or mine? A. Yes. It is quite possible to get a very large quantity of air circulating in a mine but blowing with the wind blowing from the east, and this is just possible that a strong wind from the west might reverse the current.

Q. You know that evidence of that has been given by mine? A. I have just heard it.

Q. But you did not give me evidence yourself before the Governor or the Governor's Jury? A. I explained the atmospheric conditions.

Q. I did not ask you for that. Did you give any evidence as to the possibility of the air being reversed? A. No.

Q. Now, you make suggestions about the system of examination by witnesses. That the system of inspection by witnesses be abolished as being a serious loss and a shield for incompetent managers? A. Yes.

Q. Will you tell the Commission why the practice of the witnesses making these check examinations is a serious loss? A. Yes, I think, there is no strange workings state the conditions of the mine fairly and fearlessly, because the board and better depends on it.

Q. Do you mean to say that the Commission is so great that these men would be afraid to enter the chambers? I think the moral state of things that they found? A. Yes.

Q. Then you say also that "The appointment of a district check-inspector is a recognition of this fact, and was simply done at mine working themselves to do work weekly and sufficiently, which a proper system of management would not be designed to do?" A. Yes.

Witness—J. W. W., 14 January, 1902.

2023 Q You say "The witnesses are deferred from appointing competent men, and this inhibition should be removed from the Act." Why are they deferred from appointing competent men? A It has to be one of themselves.

2024 Q When do you mean by "one of themselves"? A It has to be a mine. I do not think that they could select a mine if he has obtained a first-class certificate of competency.

2025 Q Why not? What is to prevent them? A You have got the Act there.

2026 Q Here is the Act. I will hand it to you. Show me. If you say that is the case, I want you to point out to the Commission what is there in the Act to prevent the mine from appointing one of these men whom you have obtained a first-class certificate of competency? A Is it so?

2027 Q I do not know. I want you to find it? A Have you got it?

2028 Q I want you to tell me what you have that statement on? A What page is it? You people have to deal with it regularly.

2029 Q I am asking Mr. May to point out in the Act anything that would prevent the mine from appointing one of their own men who has obtained a first-class certificate of competency?

2030 Mr. May: Mr. May knows the Act, I think.

2031 Mr. Bruce Smith: He says he does. I want him to show me, but he is asking me to show him.

2032 Mr. May: He will find it if you give him time.

2033 Mr. DeLoach: They can't.

2034 Mr. DeLoach: Rule 20 of the General Rules is, I think, what you are looking for—page 57.

2035 Mr. Bruce Smith: Section 41, Rule 20.

2036 Witness: That person employed in a mine may from time to time appoint two of their number or any two persons not being mining engineers.

2037 Mr. Bruce Smith: Q Yes? A Yes, if one of their number obtain a first-class certificate, what is he?

2038 Q I am not being examined, fortunately. You want to tell me—that the part of the Act under which you say that a practical mine could not be appointed as a check-inspector if he had passed an examination? A There is not a single sentence in New South Wales where one has been appointed.

2039 Q Is that the part of the Act, I only want it then we will pass on? A That is the part of the Act I referred to.

2040 Q Then, apart from passing the examinations for which I believe you deliver lectures, do I understand you to say that the witnesses are not competent for this position because they have not been fortunate enough to pass one of these examinations for which you deliver lectures? A That is my opinion; certainly not unless they are qualified, or unless, like a Manager's men, they have taken a certificate of competency, they are not in a position to deal with these things.

2041 Q And in order to get that certificate, I suppose that in this district they would have to work through a series of lectures under yourself? A No, not necessarily; some of them do it by private study in the district, not very many, I think, no.

2042 Q However, you think it is better and a better for incompetent men to get? A Yes, and that is one reason why better work has been performed in this district.

2043 Q What do you mean by that, —as if a confidence trick? A Yes.

2044 Q What is the lecture trick? A If 20,000 cubic feet of air was coming through that door and 10,000 went through there, and 10,000 through here, the lecture trick is that, if the check-inspector was in there, they would get a lecture here and there all the time up.

2045 Q What the inspection was going on? A Yes.

2046 Q You think that is the practice? A That is a well-known performance.

2047 Q Have you seen it done? A No.

2048 Q How do you know it is done? A From the reports of my acquaintances.

2049 Q That is from hearsay? A Yes.

2050 Q You depend, then, entirely upon what you are told? A I have seen it proved in a Court.

2051 Q In a Court? A That is not been done.

2052 Q You have heard that it has been done? A Yes.

2053 Q Do you think that is widely practiced? A It is too widely practiced, I am afraid.

2054 Q That is really a confidence trick, of charging upon others in order to increase the discharge through another? A Yes, I could give you an illustration.

2055 Q I think the Court's decision is. You say, "This inhibition should be removed from the Act," —the inhibition? A Then they could appoint a man with a first-class certificate as a mining engineer—anybody they choose.

2056 Q Whether he is a practical mine or not? A You trust them to look after that, they will look after that.

2057 Q Then you suggest that such Inspector under the Act should be made personally responsible for the administration of the Act to his own district? A Yes.

2058 Q In what way do you propose that responsibility—consciously or unconsciously? A That he is responsible for the witnesses in the Act in his district.

2059 Q That is what you said, but I asked you to explain it further, what do you mean? A If the witnesses are not doing it, he is the man that has to explain, and that nobody else must be asked, but he must explain what is the reason.

2060 Q You suggest that "Each Inspector shall make a quarterly report of the condition of the mines in his district, which shall be promptly published and distributed to the holders of licenses in the Mining Districts"? A Yes.

2061 Q That is, for the information of the miners? A Yes.

2062 Q Then you give some examples of five on the part of the man to report, do you not? A Yes.

2063 Q And you quote me from the Ball Committee? A Yes.

2064 Q The case of "John Caswell, a deputy at Ball for some years" who "deserted at the Ball Committee on one month in the mine when he took a mine." I will not use the story for you, as the place is full of gas for 12 yards back. Q 2078, p. 1097. A Yes.

2065 Q He deserted the mine and obtained work as a deputy at another mine. When the Inspector and Manager went through the mine the Inspector suggestedly asked the deputy "if he were found any more at gas mine?" A Yes.

2066 Q You give that as an illustration? A It is an illustration.

1877. Q You said he said "suggestedly"? A Yes.
1878. Q You do not know of the nature, any more than that it is an inference on your part? A Yes.
1879. Q The nature there is an inference on your part? A Yes.
1880. Q I do not propose to ask you of Mr. E. witness, of course, it is of your own knowledge? A The first is of my own knowledge.
1881. Q But you read it (p. 1879)? A Yes, but I did not read the last myself.
1882. Q Which last? A He afterwards obtained work as a deputy, that is my own personal experience.
1883. Q Of course, I heard the Inspector ask him that.
1884. Q You mean he got a sentence after he made that statement? A Yes, and I heard the Inspector ask him this question, "If he ever heard any words of the kind?"
1885. Q What was the answer? A The answer was that the deputy hung his head and looked very — (dejectedly).
1886. Q That is not an answer? A That is the answer.
1887. Q Did he say "no" or "yes"? A I forget now.
1888. Q You remember the question, but you forget the answer, though you remember that he hung his head? A Yes.
1889. Q With regard to No. 2, you say "Mr. Green gave some evidence as to the cost of trafficking herds"? A Yes.
1890. Q And "On the 12th May he was discharged from his employment at the Globe Mine"? A Yes. That is about six weeks after he gave the evidence.
1891. Q Are you able to say your own knowledge what connection there was between his giving evidence and his dismissal? A Only his own opinion.
1892. Q You do not know that of your own knowledge? I take it that will not be evidence, Your Honor. Where is the man Green? A He is dead. He has his life in an accident.
1893. Mr. Hester. The connection of this is rather too vague to form anything in the nature of evidence.
1894. Mr. Bruce Smith. Q Then you wish to say that? At the Bullock Inquiry Charles Denney, a witness, when asked why he did not complain when he knew that his own and others' lives were in danger, replied, "I had a father and brother working at the mine and I thought we would be discharged if I complained." A Yes.
1895. Q You wish to say that? The most glaring illustrations of the boycott is embodied in an inquiry which a very official but on several different occasions asked the Mines Department for, and it has been refused? I have not made some reference to the Bullock matter there? A Yes.
1896. Q That Bullock matter was fully (inserted) into by a special Commission—was it not? A Yes.
1897. Q Mr. Wade? A Not a Commission like this.
1898. Q No. This was one; and this is three. The matter was fully inquired into and reported upon by a Commission? A Yes.
1899. Q At the time that Mr. Wade was appointed, I believe a Commission was suggested which would include you? A Indeed. I do not remember at present; but that would have been a very good Commission.
1900. Q And that Bullock matter has been very fully gone into, has it not,—and the Commission was one that for themselves? A The Bullock matter has not been investigated yet.
1901. Q Was not Mr. Wade appointed as a Commission? A Yes, but the dismissal of a Deputy for reporting gas has not been investigated.
1902. Q But the Bullock matter was fully gone into, and Bullock was heard, was he not, before Mr. Wade? A There were only three matters, the last one — (dejectedly).
1903. Q I want you to answer my question. Was not Mr. Bullock heard on a Commission before Mr. Wade? Was he not examined by me for a whole day at Newcastle? A Yes.
1904. Q And you mean to say that the real facts did not come out? A That the real facts of his dismissal for reporting gas were not investigated.
1905. Q Were you asked by me as that occasion to go into Court and give evidence? A No. Your Honor, I wrote a note to Mr. Bruce Smith asking him to put me in the witness box, but he very discreetly refused to do it.
1906. Q You wanted to be examined in chief by me instead of being cross-examined? A Your dismissal was utterly inadmissible, I admit.
1907. Q Were you not ordered out of Court by Mr. Wade, as Commissioner, on the ground that you might be a witness? A Yes.
1908. Q And were you not asked to go into the witness box and submit yourself to cross-examination? A I do not remember, I wrote a note — (dejectedly).
1909. Q You can tell me about the note afterwards. You must answer my questions. Were you not asked to go into the witness box and submit yourself to cross-examination? A I do not remember. I remember writing a note to Mr. A. J. Hester, and when he told me that Mr. Bruce Smith had charged me with conspiring with a deputy on connection with a mine and for reporting gas, and of conspiring with a deputy in connection with Mr. Wear, who was heard as it was reported, and that Mr. Tall was carried out on his mate's back, and that was not reported, and Mr. Bruce Smith charged me with conspiring with the deputy, and I wrote a letter to Mr. Bruce Smith and asked him to put me in the witness box.
1910. Q And he declined to do it? A Yes.
1911. Q And he asked you to submit yourself to cross-examination? A No. I do not remember that.
1912. Q You do not remember that? A No.
1913. Q There ought to be no connection altogether? A Well, perhaps there not? It is a very serious matter.
1914. Q I do not want to leave out the fourth, but that is the Bullock matter. That is all to be had? A But will the Mines Department not know that inquiry? Do they refuse to hold that inquiry?
1915. Q I cannot say. I have nothing to do with them, except that I hold a brief for them occasionally. Now, I would like to ask you a question or two on my own account. You were examined before the Commission and the Commission's report was put out? A Yes.
1916. Q And you had a lithograph such as that which is on the blackboard, now for your special use in working indications which you wished to refer to? A Yes.
1917. (The map which was used by Mr. May at the Commission's inquiry was produced and placed on the stand. It is Exhibit No. 3.)

marked this place between Morris' place across the lane. I got [pointed upon that point] and we went across here 400 yards to the west, and then back on to the golf [the 15th green golf]. I wanted to show the conditions as much as possible of these places and where the men were. Now, I understood some of the men walked right back this way [reverted].

Q131. Q. How far over here to these places now? A. No.

Q132. Q. Had not you said that was it the same which you are now describing to the Commission before you gave your evidence, which I have been pointing out to you? A. Yes.

Q133. Q. Now, will you tell the Commission which bench data have you obtained since you gave that evidence? A. I have obtained that three men were back out of these places.

Q134. Q. Where did you obtain that? A. From the published evidence. I was in the Court and heard it.

Q135. Q. Before you gave your own evidence or after? A. Oh, no, after. After I gave my evidence.

Q136. Q. Then the position of what men has enabled you to locate the men? A. From this point—[reverted].

Q137. Q. Name the men? A. Oh, you do not supply me with a copy—I ought to have had a plan with the names. I would like to have had that.

Q138. Q. You cannot go beyond that—the position of some men? A. That these men were found close to their working place.

Q139. Q. The Men? Q. Which men? A. Morris and son, Tom and son, Arthur and son; you see from that golf here [indicating the 17th green golf]. These men could not get away.

Q140. Q. Where? Q. What men could not get away? A. Arthur and son, and Tom. I had no plan at the time to make my observations.

Q141. Q. Morris [Tom and son].

Q142. Q. Mr. Evans asked? Can you tell me who gave evidence of these facts? Name the people who gave evidence of these facts which supplied you with the additional data? A. Johnny Morrison—I am still speaking from memory—not Evans. The Evans party. I do not know who they were.

Q143. Q. Now, sir, had not the whole of these given their evidence before you gave your evidence? A. I could not say.

Q144. Q. Did not you tell the Commission just now that you had not sufficient data because you had not at that time heard where these men were found? A. Exactly.

Q145. Q. Now, sir, will you agree that the whole of that evidence had not been given in your own presence at the time you gave your evidence? A. I will agree that Johnny Morrison had given his evidence before I came into the witness box.

Q146. Q. And had he not given evidence of the position of all these men? A. Possibly, but I was not just then.

Q147. Q. Had not Evans given his evidence before you did? A. Possibly.

Q148. Q. Did you not read their evidence in the paper before you gave your evidence? A. That is possible.

Q149. Q. Then I may take it for the information of the Commission, that you may have known of facts from reading the report of these witnesses' evidence before you told me that you had not formed a conclusion? A. That I had formed a conclusion.

Q150. Q. Therefore if you had read their evidence had you given yours—[reverted]? A. If I had.

Q151. Q. If you had read it that their evidence is not the additional data? A. It may be somebody else.

Q152. Q. Only you need not name them, could you? You could not name anybody else? A. No.

Q153. Q. So that you really do not know whether you knew any additional data since you gave your evidence before the Commission? A. Yes I have.

Q154. Q. And you cannot give the nature of the evidence which constitutes the additional data? A. Oh, yes.

Q155. Q. What is it? A. The nature of the evidence was that, on my walk to the mine and when I gave evidence, I knew the conditions—[reverted].

Q156. Q. I am not asking you what you know—I am asking you what you ascertained afterwards? A. I am going to say what I ascertained afterwards. I will tell you what I knew then and when I found out afterwards. I knew the conditions of these places, the conditions from the 17th green golf, from Morris' place along the landing past the 17th green golf for about 400 yards. But I wanted to know the conditions in which the men were found and the houses that were associated with these houses the point I had pointed out to me and Stafford's going back.

Examination by Mr. Lynght—

Q157. Q. Did you observe whether there were any safety-lamps available on the day of the disaster at Knebels? A. Safety-lamps?

Q158. Q. To go into the mine? A. I got hold of one. I got one. I think it belonged to somebody else, though. I think I should state it.

Q159. Q. Was there a sufficient supply of safety-lamps for rescue purposes? A. I did not observe that.

Q160. Q. Did you observe any A.B. lamps getting a lamp? A. I got a lamp, but it burnt very badly. I can tell you that much.

Q161. Q. Do you know whether there was any difficulty in getting safety-lamps? A. I heard the men complain about the difficulty, but I could not say of my own knowledge.

Q162. Q. I want you to state on that plan the places that the safety-lamps were placed. I want you to look carefully at it, as that is your plan, on the deposition; the points that the safety-lamps were placed? A. The safety-lamps were placed the north end of the 17th green golf; it passes the north-west corner of the 32nd green golf. The safety-lamps were placed the north end of the 17th green golf. In this condition [reverted] as the plan? Q163. Q. Mr. Evans asked? Q. Cannot you remember which way the safety-lamps? [By direction of Mr. Evans, a plan, on which the safety-lamps are marked blue and the return air are marked red, was shown to the witness.]

Q164. Q. Mr. Evans [to Mr. Lynght]. Was it marked on the plan, and you saw with Mr. May his opinion, founded upon this information?

Q165. Q. Mr. Lynght? Q. Do you know whether the safety-lamps of that 32nd green golf was recently checked off, or were there any retentions into the eastern side? A. I never travelled along this area of looking up and down. I could not say.

Friday—2, May, 24 January, 1886.

- 2750 Q When you said that the position of the roof was such that, had CH, been one of the good ones, some of the workmen would have been burnt as they passed by years along the travelling road at the edge of the roof with naked lights, where did you mean? A I was referring to the cross-cut heading, where I was referring to every place in the mine where the intake air went past the good edge.
- 2751 Q But did you know where there were any outlets for gas anywhere there? A Oh, it is not a satisfactory thing, stopping of a roof.
- 2752 Q No, but did you know whether there was any outlet there? A No, I do not know it. My idea was that the roof would be quite even, as it is shown here (on the plan), and that the travelling road would pass the edge of the roof with the intake air.
- 2753 Q But did you know of any place where it was open? A Yes.
- 2754 Q That is what I want to know? A I had not a plan of the mine.
- 2755 Q But where was there? A At no time down here we went into the roof from the travelling road, just a short distance, and we found some gas there (ask light). It was probably black damp; at least, it was an extremely gas, sulphur.
- 2756 Q Is that the place you mean? I want to know where you meant that the position of the gasses were such that had persons passed they would have been burnt,—where would they have been burnt in passing? A Passing this 1st new roof. It was quite open, and men travelling to and fro there, I have had been over five days in that roof, men have caught it some time.
- 2757 Q Did you know of any entrance to this roof, with the exception of the 4th Right, where men might have got in? Down here? (Consulting heading Maps Book.)
- 2758 Mr. Justice. Mr. May said he never was down that side.
- 2759 Mr. Justice. Q Did you mean that the only two places where men would have been burnt were the 3rd Right and the 4th Right, or the 25 new roof? A Oh, down to.
- 2800 Mr. Justice. Mr. May has already said that he comes—especially when he looks at the plan, and, because it is the position, that these outlets from the roof were open on the east side, the north side, as well as on the west side,—that they were open where they appear on the plan.
- 2801 Mr. Justice. Q Then you mean that at each of those places where they appear open men might have been burnt? A Certainly, if fire-damp was present in the roof.
- 2802 Q And is that opinion, the system of allowing the intake to pass a waste working in had ventilation? A It is not properly ventilation, no.
- 2803 Q Now, concerning these slack stoppings,—did you observe whether any of the stoppings had crumbled away that had been made of waste? A I observed some were blown out, and I just examined them. Slack stoppings are a very bad practice, and they are common in the district.
- 2804 Q How should the stoppings be made up? A With brickwork or good building stone. It is a common thing to use 50 and 60 per cent of the air passing into a mine through the defective stoppings built in the intake.
- 2805 Mr. Justice. Q You are speaking now of the ordinary stoppings? A Of the slack stoppings particularly.
- 2806 Mr. Justice. Q Those were the stoppings you observed in Kamb's? A I observed somewhere there.
- 2807 Q You said the furnace had reached the point of necessity? A Yes.
- 2808 Q In what way? A That the mine was so extremely low, a furnace that might do for a mile in its earlier stages soon arrives at a point where it is inadequate to produce the quantity of air required; but my great objection to that furnace was its location, being to blow out and stoppings in the mine.
- 2809 Mr. Justice. Q Did you ever go to the furnace? A No.
- 2810 Q Did you ever see the furnace in your life? A No.
- 2811 Mr. Justice. Q Have you seen a photograph of it? A I have not seen a photograph of it.
- 2812 Mr. Justice. I want to ask Mr. May that, because that seems to be an important question of his evidence.
- 2813 Mr. Justice. Q Did you take the measurement of the air when you were examining? A No.
- 2814 Q Or the size of the shaft? A Yes, but I think.
- 2815 Mr. Justice. Q You do not know the height of the shaft? A 420 feet, I believe.
- 2816 Mr. Justice. Q That is the extent of your knowledge.
- 2817 Mr. Justice. Q What was the condition of the air when you were examining about Atkin's place? A Oh, the condition of the air after an explosion is not any evidence at all.
- 2818 Q No, nor what was the condition of the air? A It was very moist.
- 2819 Q Did you ever see the name of one Manager who improperly obtained a certificate of service? A Stephen Powell.
- 2820 Q When did he? A At New Lambton.
- 2821 Q When? A Oh, were the passing of the 30th Act, I could not tell you, I am sure.
- 2822 Q Is he a Mining Manager now? A I do not know. I know he has got a first-class certificate of service.
- 2823 Q Where is he now? A He is in New South Wales.
- 2824 Q Do you know where? A No.
- 2825 Q Do you know of anybody else? A Yes, I know of several instances, but these are no more, perhaps, than others.
- 2826 Q But who is he? A I could not tell you.
- 2827 Mr. Justice. Q That of whom are you speaking? A It was two glowing instances which occurred in Newcastle while I was there. I will supply you with the names afterwards.
- 2828 Mr. Justice. Q I want to know the names? A I have given you one name; and I will give you the other when I get it.
- 2829 Mr. Justice. Q A glowing name? A Yes.
- 2830 Mr. Justice. Q I want to get the names down? A I will give you the names. I will send them to the Court.
- 2831 Q Do you know of any Manager in this district who obtained a certificate of service improperly in your opinion? A I have no knowledge of the circumstances.
- 2832 Q Do you know of any under-manager in this district who obtained a certificate of service improperly? A I have no knowledge of the circumstances.

1898. Q Concerning this Mark Tet recommendation, preventing kidnapping, and black-listing (Recess No. 17),—with the exception of the Bailey case, do you know of your own knowledge of a black list being kept up as a policy?

1899. Mr. Webb J I object to this question. The clear implication is that there was a Mark Tet kept on Bailey's case.

1900. Mr. Agnew J Q Leaving Bailey's case out of consideration altogether, do you know of a black list being kept up by any railway in New South Wales at the present time? A Not in the least. They would have more sense than that to let me know.

1901. Q I am not talking about these cases now;—do you know of it? A I know nothing of it.

1902. Q I suppose that the railway companies in order to see all safety-lamps (Recess No. 2) in your opinion should the inspectors have that absolute power? A Most certainly not.

1903. Q Then upon whom could you place that absolute power to order the use of safety-lamps? A I would place that power in the hands of a Board which I would suggest for investigating mining accidents.

1904. Mr. Agnew Smith J Q Would you allow lawyers to be represented? A The Chairman should be a District Court Judge, or other gentleman possessing legal qualifications.

1905. Mr. Agnew J Q Then, do I understand that before you would order safety-lamps to be used in a pit, the necessity of them would have to be investigated by the Court that you suggest? A Safety-lamps are often put in to meet emergency, when the mine suddenly is in great danger.

1906. Q Then do I understand that before there would be a power to order the use of safety-lamps in a pit the necessity of them would have to be investigated by this Board that you suggest? A Yes; and they would then have to understand the ventilation conditions of the mine before they gave that order.

1907. Q Then, at the instance, while the Board were were acting, what would become of the safety of the mine? A If you had a competent Manager at the mine, he would look after the safety of the mine.

1908. Q If a sudden development took place in a mine, showing the presence of gas, who should have the power to order safety-lamps at once in that case? A The Inspector has power to withdraw the mine in case of danger.

1909. Q That is not an answer to my question,—who should have power to order the safety-lamps in that case? A If safety-lamps were requisite, then the Inspector and the Manager would put them there in the working time.

1910. Q Well, do you say the Inspector should have that power? A The Inspector should not. The Inspector is not the Manager of the mine; and you are making the Inspector manage too much of the mine.

1911. Q Well, do you say that the Manager only should have the power to order the immediate introduction of safety-lamps? A Certainly not. The Manager of a mine is held responsible for every detail of the management in his mine, instead of shipping it on to somebody else,—if he is held responsible, and he is a competent Manager,—if the conditions are not good enough he will close that district.

1912. Q There is a recommendation that inspectors be vested with power to order the introduction of safety-lamps. You say that a Board should investigate and order them not want to know, pending the investigation by the Board, who is going to have the power to order them and enforce them? A The manager is responsible.

1913. Q I know he is;—I want to know who is to have the power to order them? Who is to have the power to enforce the use of the safety-lamps pending the investigation by your Board? A The Inspector now has the power.

1914. Q Never mind who has it now;—I want to know who should have the absolute power to order the use of safety-lamps pending the investigation by the Board? A He has the power now.

1915. Q In your opinion, should he have it? A He has it now.

1916. Mr. Agnew J Q Should that continue? A At present the Inspector has the power to order the use of safety-lamps in the mine, and the Manager has the power to say, "You can swing up."

1917. Q Should he have the power to order the use of safety-lamps and enforce it? A No.

1918. Q Never mind then the power which the Inspector has now. I want to know, pending the investigation by the Board, who should have the power to order safety-lamps, and put it force that order? A Now, we will not get any nearer, shall I explain the position?

1919. Q Please tell me who? A You will not get any nearer if you talk for nothing here. We have the English Act to guide us, and I will explain to you if you choose. If you do not choose you can go on.

1920. Q Who should have the power to order, pending the investigation? A I tell you that the Inspector has power to order.

1921. Q Is it right for him to have that power? Then, if he should not, who should? A The Inspector now has power to order safety-lamps; and the Manager has power to say, "I am not going to put safety-lamps on."

1922. Q Then who should have the power to enforce their being put in? A The Court I refer to.

1923. Q But pending the investigation by that Court? A The Manager is held responsible for the condition of the mine.

1924. Q But I want to know—[interrupted] A Go on, my friend.

1925. Q Would you have no power or authority to compel these extraordinary pending the investigation by the Court? A I would not have power given to an Inspector to say to a Manager "You must do this, and you must do the other." The English Act recognizes this, that the Manager is responsible, not the Inspector, and the Inspector if any conditions are unsafe, closes the mine under the prohibition clause. And you cannot alter it.

1926. Q That being so, do you say that no person should have the power to enforce the use of safety-lamps pending the investigation by your Board? A Oh, well, you can get on further with me.

1927. Mr. Agnew J Your Honor will see that there is a very legal question.

1928. Mr. Agnew J Mr. May seems to object to answer that question. You have put it a great many times in different ways.

1929. Q Cannot you answer that, Mr. May? What would you suggest in that case? A I object, Your Worship, to any Inspector going to a mine—[interrupted].

2892 Q Never mind about that. He was an Inspector; consider that he has discovered a condition of things which has suddenly arisen, and in such that safety lamps should or must be used, what would you suggest to do the personnel use of safety lamps pending an investigation by the Court? What would you propose, is it whether they ought to be provided or not? A Exactly the provision that is now in the English Act and the proposed Act.

2897 Q What is that? A That the Inspector can order the use of safety lamps; and the Inspector is then subject to the Arbitration Clause of the Act, but the Manager is held responsible for the safety of the men pending that inquiry.

2897 Q Mr. Haines? Would you be surprised to learn that he cannot take the men to arbitration? A The Inspector cannot?

3000. Q That is defective ventilation,—but suppose that the initial explosion is such as it should be?
3001. A Yes, [Mr. Lyngby] Q What would be the proper distance for the oil through in such a case as that?
3002. A Where the ventilation of the mine is efficient, then you can carry out a considerable distance... and it is done in practice.
3003. Q I do not know what you call a considerable distance.—the question I put to you is: what, in your opinion, would be a proper distance for vent through, assuming the ventilation actually was efficient? A I have already found that 20 yards was a very fair distance for vent through.
3004. Q In your opinion, would not thoughts at 20 yards in any way weaken the roof? A The object of the lamp pillar is to save your work—to save the point of the lantern.
3005. Q No, 6, "Inspection with linked safety-lamp in all cases"—you are aware of the exception that they need not inspect every working where gas has not been found in the previous twelve months?
3006. A Yes, that is correct.
3007. A Further, you say I linked safety-lamp. You examine those two headings.—No I make and link heading—a deputy. You go into No 7 heading to examine the place. If workers are moving down with added lights, a proper system of inspection is that the deputy should never go lamp down off and back his back on these to show there has been an inspection with a linked light. Then I presume to would link his safety-lamp, and go into the back heading, and then answer his lamp off to make an inspection. Now, you are the chairman of that position.
3008. A Yes, that is right. Q Is that what you say is done, or should be done?
3009. A Yes, [Mr. Lyngby] Q Is that what you say is done, or should be done? A The method that we adopt in examining plants.—[Interposed.]
3010. Q Do you know whether that is done, that you have said? A Oh, no.
3011. Q Do you say it should be done? A If a lamp has to be linked, do you not see that in every shaft it was most unlikely to happen.
3012. Q Do you say it should be done? A I only say that under a proper system of inspection you would not ask the deputy to link his lamp to go from that place to there [indicating on the map the No. 1 main heading and the No. 1 back heading].
3013. Q I ask you if it is right for him to link his safety-lamp? A It is perfectly right for his lamp to be linked if he is making an inspection for safety lamps, but if he is making an inspection for safety lamps it is absurd for him to link his lamp.
3014. Q "Mandatory examination and report by deputies and District Inspector with hydrogen flame" (Recommendation No. 7). Do you suggest that recommendation? A No.
3015. Q Why? A Because you are putting it upon the District Inspector and the workmen's Inspector; which is an unreasonable proposition.—[Interposed.]
3016. Q I said deputies and the district inspector? A We are mixing them.
3017. Q I do not mean the two at the same time, but an inspection by each at different times? A The superintendent should make the inspection with the hydrogen flame.
3018. Q Do you say he should make it once a month? A He should make it oftener than that. As frequently as he may, if he is going to be sure that as a place where there is no coal-dust.
3019. Q But I am a general inspection, to enable him to determine the safety of the whole mine? A That would be a very desirable thing to have a monthly inspection with a hydrogen flame under those conditions.
3020. Q And you would have that done by the deputies and District Inspector? A By the Manager and the under-manager, but as to the duty of each inspection it should be allocated.
3021. Q Not the chief inspection at all, but by the Government Inspector? A He ought to know the condition of every mine with respect to the existence of gas.
3022. Q Right, the Government Inspector to examine the condition of every mine once a month with the hydrogen flame? A Yes, certainly.
3023. Q "All doors are to be closed and secure closed of new meters" (Recommendation No. 9). What do you say to that? A It is a common get practice for all doors to fall in of themselves. That is, to fall naturally.
3024. Q Could that be done? A A competent Manager will see that it is done. It requires competency.—[Interposed.]
3025. Q Do you think it should be done? A Yes. It is remarkable to hear it stated. It is a self-evident truth.
3026. Q "Ventilating and haulage roads and other places necessary to be properly widened" (Recommendation No. 10). A Yes, that is a very sensible proposition.
3027. Q "Managers compelled to give more personal care and attention to management of colliery" (Recommendation No. 11)? A I think it is very wrong for the Manager or the Inspector to hold the workmen responsible for managing a mine, very wrong.
3028. Q "Use of man byes colored" (Recommendation No. 12). They are 2 x 4 x 6 now.
3029. A Yes, I agree to that. It is not so in the evidence at all.
3030. A Yes, [Mr. Lyngby] I am telling Mr. May now.
3031. Q Is the use of a suitable 2 x 4 x 6 inadequate now? A It is a common thing to make your refuge hole 6 feet square and 6 feet from the roof.
3032. A Yes, I think that would be a last drop? A It all depends on where the road is.
3033. A Yes, [Mr. Lyngby] Q "Instructions to employees regularly on sources of escape" (Recommendation No. 13).
3034. A When would you have give the men this instruction? A Oh, the deputy should give a month's travel out by the action, surely as other travelling way, to demonstrate the men with it. That is a common practice in every mine.
3035. Q "Safety-lamps not to be substituted for shot firing" (Recommendation No. 14)? A I am almost astonished to hear of safety-lamps being raised. It is not so in fact.
3036. Q For that purpose? A Yes. I have seen it in fact of a small room, cut out where explosions have been. I have heard of explosions where that practice was frequently in operation.
3037. Q And can any one make a mistake of the danger that must flow such a practice? A It is an instance of very serious mismanagement, and it is certainly to see a remarkable thing that lamps should be opened to light shots.

Continued by Mr. Wade.

2012. Q Under no conditions is it safe, do you say, to open a safety lamp to fire a shot? I will put it this way—do you say that it is unsafe under any conditions to open a lamp to fire a shot? A It is not a question of safety, but I have never heard tell of it.
2013. Q Do you say it is unsafe under any conditions to open a safety lamp for the purpose of firing a shot? A I simply say it is a very unsafe practice.
2014. Q "Yes" or "No," or "I do not know," will do for me? A I will give you conditions where it might be safe.
2015. Q Will you answer my question? A No. However, I have no reply to it. I will only have to say "Yes," "No," or "I do not know."
2016. Q What are you going to say? A Oh, I know; and you will not allow me to say.
2017. Q Very please say you or not. It is either safe or it is not safe? A It may be safe with one explosion, and not with another. It is perfectly well known.
2018. Q Then you would not say it is unsafe under any conditions? A I am not going to say it is unsafe under any conditions.
2019. Q Will you say under some conditions it is safe—[Interupted]? A Under some—[Interupted].
2020. Q Listen to the question, please. Will you say under some conditions it is safe to open a safety lamp for the purpose of firing a shot? A If you had a—[Interupted].
2021. Q I ask you, yes or no? A Yes, if we had it as a quarry outside here.
2022. Q Now we come to Kumbie. Do you say it is unsafe under any conditions to unlock a safety-lamp to fire a shot in Mount Kumbie? A It is unsafe under any conditions. It is a wrong practice.
2023. Q What is the risk you run in lighting a shot with an open safety-lamp? A You ought to be, not, as a rule, very likely you would be, fined.
2024. Q Never mind the fine—what is the risk? A The risk is that you are inside a cotton-board, where no naked light is used.
2025. Q What is the risk to the man's bodily health or his life? A The risk is that it is establishing a system which is wrong.
2026. Q I ask you again what is the risk to a man's bodily health or his life; and I will go on a down town until I get an answer. You answer that question. Can you answer it? A I can only say that it is a wrong practice, that is all.
2027. Q Can you answer that question? Tell me what the risk is? A The practice is wrong.
2028. Q Will you kindly answer my question? Can you tell me what the risk is? A The risk is that you show evidence that you have an open light at a point where an open light ought not to be.
2029. Q Then what is the risk you run? A You are discouraging proper mining practices.
2030. Q What do you expect to follow? A You expect the risk to be, "The deputy opens his light; why should not I open mine?"
2031. Q What do you expect to follow then? A An explosion.
2032. Q Then, supposing the workman observes the rule and does not open his lamp when he is told not to, I ask you again what is the risk of firing a shot with a naked light? A That is the only reason that I have to say, that you can go into the place and open your light and light a shot; that, under Managum that understood these matters, you would not do that a second time.
2033. Q I will suppose the Manager is absolutely incorrect, that he is a fool. I ask you what is the risk a man runs, say, in Mount Kumbie, if the lamp is opened for the purpose of firing a shot? A First you could go into the mine and open the lamp and light the shot.
2034. Q What would you expect to follow? A It is just possible that no explosion may follow, but it is a wrong practice.
2035. Q Supposing you know there is no gas? A Very well.
2036. Q In passing, you know the place is not dry and dusty? A Yes.
2037. Q What is the risk then? A The risk is that you have the cotton-board up beside you. The risk is that you will be fined or be sent to jail.
2038. Q But tell me the risk to the miner, to his bodily health? A He can open it, I admit. You can go into Holmestown and open it if you like.
2039. Q Can you tell me of any bodily risk he meets? A The risk is that it is a wrong practice, a dangerous practice, and strictly opposed to all the proper practice of mining.
2040. Q Are not the elements of risk the possible presence of coal dust and fire-damp? A There may be none.
2041. Q There may be none at all? A But that does not say it is the practice.
2042. Q I have not said a word about practice. I am talking about danger to a man's life.
2043. Q [Mr. Moore.] You mean physical danger, quite apart from the question of demoralization?
2044. Q [Witness.] Assuming there is no gas there, that there is no immediate danger of you die with immediate proximity; but, then, where you are safety-lamps, the rule is that you fire with some of the higher explosives. And you can apply the same principle to the branch of every mine connected with mining as you do here, because it is a wrong practice.
2045. Q I understand you to say that there may be no immediate risk; but you say there is a real risk in allowing potentially the branch of a very wholesome rule? A Yes. A cotton-board is placed at a certain point, stating that no naked light is allowed beyond that point; and he opens his light when he knows that no naked light is allowed.
2046. Q Mr. Wade? Q What was it? A The deputy.
2047. Q Do you know of any provision in the Act about it? A It is not in the English Act. It is not in that.
2048. Q What do you mean by "this"? A Do you mean the present Coal Mines Regulation Act? A Yes.
2049. Q That prohibits a safety-lamp being introduced under any conditions? A On the inside of the cotton-board.
2050. Q Do you say it prohibits a safety-lamp being unlocked in a mine under any conditions? A The Regulations say that no safety lamps shall be unlocked inside a cotton-board.
2051. Q Supposing safety-lamps are used throughout a mine, you do not have a cotton-board then? A Yes.

10794 Q Where is it? A At the mouth. You have a certain board, — No naked lights or matches, or pipes, placed beyond this point.

10795 Q Do you know whether the presence of that board with that nature of allowing naked lights for short firing? A I could not say.

10796 Q Now, coming to the explosion, has the information you have gathered since you gave evidence caused you to alter your opinion? A No.

10797 Q Only to confirm it? A My opinion was then in shortness. I wanted more light.

10798 Q But, in your own mind, you had fixed upon a place for the start of the explosion? A In my own mind.

10799 Q Yes or no, please? A Yes.

10800 Q Did you not choose to tell the Court or the Jury, or anybody else, what that precise spot was? A With my conviction was I.

10801 Q What the precise spot was? A It was not a precise spot. I had two. I had three. There is one, there is one (pointing to the map).

10802 Q That is one spot between No 1 Right and No 6 shaft? Do not? A Yes.

10803 Q Was there more than one spot between No 1 Right and No 6 shaft? Do not? A That is in my mind between No 1 and Stafford's going board there was all the condition of an explosion.

10804 Q I am not talking about that. You have told us that at the Coroner's inquest you had fixed on your mind upon the spot where the accident occurred? A One spot—I have got three, I tell you.

10805 Q Did you say to me just now you had fixed upon one spot in your own mind at the Coroner's inquest, or at that time, at which the explosion was initiated? A What do you mean by one spot? I do not understand what you mean. I would tell No 1 heading one spot, and I would tell the other one spot.

10806 Q And that spot was in my mind too. There are spots.

10807 Q Yes, that is the most probable place for the explosion—? A The most probable source of the explosion—where looking at the plan in the office—the most probable point of the explosion to me was where Marry and son worked. After examining that, I had noted the condition of this (new) post and these two places. I had suspended my judgment to get whereabouts about that post and these places (I were post and Stafford's going board).

10808 A. W. Wade Q Now, is this correct, that you have told us that you know of three likely places between No 1 Right and the No 6 shaft heading? A I and there were a dozen, in my opinion.

10809 Q Do you say, now, that at the Coroner's inquest you had fixed upon at least three places between No 1 Right and No 6 shaft heading where the explosion might have taken place? A Might have taken place there. My mind inclined towards these three places.

10810 Q Inclined towards those three? A Yes.

10811 Q Did you have an opinion at the time you gave evidence at the Coroner's Court that Marry's place, to the right of No 1 heading, was the most likely place; yes or no in fact? A I will not say yes or no.

10812 Q Then say you cannot? A My mind was in suspense waiting for further evidence.

10813 Q Had you in your mind at the time of giving evidence at the Coroner's Court Marry's place or Marry's light as being a likely point for the explosion to start from? A Most certainly I had it as a likely point.

10814 Q Now, you are quite clear about that? A Quite clear about that.

10815 Q And you would not call that between No 1 heading and No 6 shaft heading? A No, not that.

10816 Q Now, did you not swear in the Coroner's Court that the conditions you believed to was, I have formed the conclusion that the disaster occurred between No 1 Right and No 6 shaft heading? A Quite right.

10817 Q Then you had concluded at that time, evidently, Marry's place? A I took the best man — (interrupted).

10818 Q Now, before we go on you told me a minute ago that Marry's place would not be between No 1 Right and No 6 shaft heading? A Did I? I. A. R. While I expand the statement under your eye over the evidence on this point.

10819 Q Now, do you want to alter that? A I want to alter that to the extent, that, when entering the mine, I took from the last man who was killed on No 1 Right to the last man I knew had escaped to the right of No 6. I took that area between the face and this (if seen) as being the likely spots to start my attention on.

10820 Q Very interesting, but not so answer to my question—do you want to alter the statement you made just now, when you said that Marry's place is not between No 1 Right and No 6 shaft heading? A Oh, certainly it must be altered, because it is between No 1 Right and No 6 shaft heading.

10821 Q Is not Marry's place right outside the back heading of No 1 Right? A Inevitably No 1 Right.

10822 Q Then if it is on No 1 Right, it cannot be between that and No 6 shaft heading? A It is on No 1 Right, and it is between No 1 Right and No 6 shaft heading. Of course it is.

10823 Q Now, will you bear that the fact that you have of the suggestion that Marry's light was the spot at which the accident happened was when Mr. Atkinson was examined? A No, certainly not.

10824 Q Tell me one person who gave evidence at it in this Court before? A But it does not need to be a person who gave evidence of it.

10825 Q Tell me any person who mentioned this to you? A I did not talk to anybody one word about that explosion. I kept it in my own head.

10826 Q What was your reason? A Because I knew I had to meet you. I was not going to give my opinion until I was here.

10827 Q Why did you not give it when you were there at the Coroner's Court, —why did you not give it when you came here? A I had a very good reason for it.

10828 Q You decided not to give it, you said? A Yes.

10829 Q If you can give it to day, why did you not give it at the last Court? A For the simple reason that you desired to put me at this bar to express my own information.

10830 Q Do you know who called you? A You did, you said "I am going to call Mr. May."

10831 Q Are you aware that the Coroner subpoenaed you? A Oh, yes, with your construction.

10832 Q Are you aware that the Coroner told you to leave the Court when the request was first opened, and I was not even here? A Did not arrange it before you went away?

10833 Q What do you screen me all? A Did you arrange with the Coroner before you went away?

Witness—J. May, 14 January, 1906.

6012. Q Do you mean to say that I arranged with the Coroner to have you subpoenaed on my behalf?
A That you stood up in this Court and said that you would call me as a witness.
6013. Q Do you say that I arranged with the Coroner behind your back to have you called? A Oh, I would not say anything at the sort; I would not dream of it.
6014. Q This, whether I called you or not, why could you not have given to the Court here and the Jury the whole of the knowledge that you had at that time? A For the simple reason that I was waiting for further information.

[At 1 o'clock the Inquiry was adjourned until 2 p.m.]

Arrivages

6015. On resuming at 2 p.m., Mr. W. H. Pratt attended to take shorthand notes of the evidence and proceedings.

Re JONATHAN MAY, previously sworn, is further examined as under:—

6016. A. W. W. Q You made some statement to day that you attributed the explosion to some door which I suppose must describe the air, and took the proper supply away from the room on the late of No. 1 level?
A Yes.
6017. Q Is that based on evidence or on theory? A With the doors—— (interrupted).
6018. Q Is there any evidence that you know of? A None in this place is an indication that the air in No. 1 main level goes direct to the surface side of the tunnel west heading in No. 1 Right, and it is then drawn through a cut-through up No. 1 back heading, and then returns and passes along the face of those workings.
6019. Q I want you to say whether you had any evidence that the doors there being open, short-circuited the air that ought to go to the face? A My evidence was that that—— (interrupted).
6020. Q I do not want to know what your evidence was, and I will repeat my question [Question repeated].
A I only have the evidence of the pitch, which shows that the air was dependent on doors which were single doors, and that resembles Rendell's well. Downward and Back.
6021. Q You show me the doors which you rely upon as having tended to short-circuit the air? A There is a single door at the surface side of No. 4 Right, a single return door at No. 4 Right, a single return door on No. 4 Left, and, on both the travelling and the roadway, a single door—a wooden door—opposite No. 4 Left, and a single door at No. 5 Right. I see there are three single doors near No. 5 Right and a single door on No. 1 main level. The ventilation of the face of No. 1 heading and No. 1 back heading is dependent on one return door, and if that was defective the air would be taken off.
6022. Q Can you tell me of any one of these doors that was damaged? A No.
6023. Q That is in part theory? A It is in part theory at all.
6024. Q Can you tell me of any fault? A It is an actual fact in saying that doors, especially single doors, are dangerous, and that they are wrong both in theory and practice.
6025. Q You are going on the theory that single doors are dangerous—that all single doors are dangerous?
A Yes.
6026. Q But you have no proof of the doors being damaged on the day of the accident? A No. Only that the current was dependent on several single doors. It is on that point that I connect the Bull and the Burnwood Discharge.
6027. Q Now, is this correct: "That a fall of the roof will tend to heat the air by compression"? A Yes.
6028. Q Have you made any experiments as to what extent that will follow? A No, it would not be practicable to make any experiment like that in a mine.
6029. Q Do you know at what point and how well you have compressed air? A No, I do not remember.
6030. Q Now, one word as to the clock question: do you say that miners are not competent to become clock-questioners. They are either competent or are not competent? A To become a clock questioner a man must hold the same qualifications as a Blamperholder.
6031. Q Do you say whether miners are competent or not? A Not answering to my argument.
6032. Q I suppose, if a man can detect gas with a safety lamp, that is sufficient knowledge to have to make an examination for gas? A No.
6033. Q What do you want to know? A You want to understand the method of carrying air currents in a mine.
6034. Q I am talking about taking gas; is not that sufficient knowledge to have to detect gas? A, if he can do it.
6035. Q Now, you were asked about safety lamps: is this the position which you take up—that although you may find gas in a mine it is not therefore necessary to put on safety lamps? A That is the position I take up.
6036. Q That the ventilation may be improved so as to dissipate all traces of inflammable gas? A Yes.
6037. Q And that if gas is found in a mine the first question is as the ventilation defective? A Yes.
6038. Q And if you find the defect? A You remedy it.
6039. Q But when you find the ventilation is absolutely perfect in the highest point of the mine, and you find the inflammable gas, you would put on safety lamps? A Yes. I would like to illustrate the position assuming you find that the ventilation has been restored, you would not put safety lamps in a mine, but you would put in a few and remove the ventilation.
6040. Q You know the general method of ventilating pillar workings? A Yes.
6041. Q Is the air allowed to circulate past a pillar working and over a waste? A It does not go over the waste as a rule, but past the edge of the goaf.
6042. Q Where you are taking the pillars out cannot you ventilate the pillars by a current of air, if it is moved over the mine and along the pillars? A No, it is not done.
6043. Q You never tried it? A It is not done.
6044. Q It is not done? A Nowhere. I would not dream of it.
6045. Q The report is dangerous? A It is not practicable.

- 4000 Q If there was only a bill of 3 or 4 that in the waste could it be done? A That is not a good.
- 4001 Q I said a waste of 3. They are spontaneous fires.
- 4002 Q You know that the real way to do it is to have a Court of competent persons perfectly experienced in mining matters, representing witnesses and proprietors, instead of providing a District Court Judge — (interrupted).
- 4003 Q Then you do it — say you do it. A The whole thing is impracticable.
- 4004 Q Can you do it? A If the law goes across it, yes.
- 4005 Q The House? Is there any movement which you wish to make? I say that all the matter which you have gone into of your own private affairs with the Department is not in the nature of evidence in this case. It is not only quite immaterial to this inquiry, but it is of such a nature that I would suggest that it is not judicious that it should be gone further into. The last thing to do is to proceed as far as we can with it. It is outside the scope of this inquiry to search into the question of other, you have been fairly well treated, so when we have done it, matters have been passed and sent Department, but if you have any evidence to offer or any other suggestions to make we shall be happy to hear them.
- 4006 Q Witness? I understand that my statement that a proper system of mines inspection would be desirable can be put before the Court.
- 4007 Q The House? That has already been given into in some extent.
- 4008 Q Witness? May I be permitted to suggest that all suggestions into mining disasters or serious mining accidents should be by a Court of competent persons perfectly experienced in mining matters, representing witnesses and proprietors, instead of providing a District Court Judge — (interrupted).
- 4009 Q Mr. Brown Smith? I question whether this matter is within the terms of the Commission.
- 4010 Q Mr. Brown Smith? It has been gone into in some extent.
- 4011 Q Mr. Brown Smith? It will occupy a great deal of the Court's time unnecessarily, and the Commission is only concerned about disposing of the cause of the Mount Kenilbe disaster and the possibility of other similar disasters. It has not to inquire into the constitution of a Court of Inquiry into disasters generally.
- 4012 Q The House? Excepting then I propose that Mr. May should be suggested that the constitution of such a tribunal, always ready, would have the effect of keeping mining managers up to the mark.
- 4013 Q Mr. Brown Smith? That is a serious suggestion.
- 4014 Q The House? That is the only way in which it can be continued in this inquiry.
- 4015 Q Witness? I suggest that such a suggestion that competent witness and reliable mouth of every mining explosion where lives are lost, and many other disasters resulting in a loss of four or more lives. In each case which such Court shall investigate, the usual inquiry shall be limited to the cause of death, and that no inquiry be permitted to appear in such Court on either side, that workmen's representatives be elected annually by ballot of the Mines' Ledges of the Newcastle, Lithgow, and Howards Rivers, there being three separate districts for the purpose, the voting to be conducted in each district. Now, as to Government inspection.
- 4016 Q The House? The further you go, the more I am inclined to think with Mr. Brown Smith, that this is outside the scope of the Inquiry.
- [The Commission then conferred on the matter.]
- 4017 Q The House? We have decided to let you go into this matter. Nos. 1, 2, 3, and 4 on your statement in this matter, have already been gone into, and No. 5 has also been gone into, but we think that it is going the far to enter into that matter. Have you anything to say with regard to No. 1?
- 4018 Q Witness? That is "That the present system of mine inspection is an utter failure, based by the explosion of gas at Bulah, Duffley, Berrig, and Kenilbe."
- 4019 Q The House? Q You think that if there had been a better system then explosions would not have occurred? A That is what it comes to. Experienced men would have anticipated it. No 2 is that the system should be rearranged on the following lines — (interrupted).
- 4020 Q The House? Q You propose the establishment of independent inspection districts, with a competent man appointed in the last person of examining and making serious matters reported to each district. That explains what you mean by "independent inspection districts." A That such inspectors shall have a district assigned to him, and that he shall be responsible for the administration of the Act in that district. In the event of any explosion occurring that Inspector must show that he took all reasonable precautions — not by any other person, but by himself personally.
- 4021 Q The House? Q There is to be no overlapping of the Inspectors' Districts? A No.
- 4022 Q Q Is there in present? A I do not know. In the event, say, of the Kenilbe disaster, the Inspector would have accounted what percentage of gas the districts could find, the likelihood of the removal of the gas surface, and all other dangers which may have contributed to the accident.
- 4023 Q The House? Q That would have been done under the present system. You say — if the inspection had been as it should have been. I wish you would answer my question. You say how probably that if the Inspector who reported the Mount Kenilbe Mine had been sufficiently careful, he would have detected enough to have prevented the explosion occurring — now what is the difference between the new system which you propose and the present system? A Under the present system, the man has first to report to the Chief Inspector; but under the new system of inspection he would do the duty himself.
- 4024 Q Each Inspector would have the same duties? A Yes.
- 4025 Q And would have a special district assigned to himself? A Yes, and be responsible for it.
- 4026 Q Yes, then that the responsibility you mention in the fourth heading — "Each Inspector to be made personally responsible for the administration of the Act in his own district" — would, as his responsibility would be such, not, be more effective? A Yes.
- 4027 Q You propose that "Each Inspector shall make a quarterly report on the condition of the mines in his district, which shall be promptly published and distributed to the Ledges of Act in the mining districts?" What does that additional mean? A At present the reports are embodied in the Chief Inspector's report; under that system they would be presented separately.
- 4028 Q If you wish to say anything about any of these suggestions you are at liberty to do so, but we hold that No. 2, which proposes "that the appointment of Inspectors be taken out of the hands of the police and departmental board," shall not be gone into. And No. 3, which proposes that "in the event of an explosion or other disaster no inquiry should be permitted to be presented at the Court of Inquiry," is an amendment, and it apparently proposes to deliver persons from a rule which they are supposed to have of choosing

TUESDAY, 7 May 11 January, 1906.

choosing those whom they prefer to represent them. A The only thing which I would like to say in this, I believe that, if these suggestions were carried out, they would make the working of the mines more satisfactory. They would reduce accidents, and improve the ventilation, and circumstances like the explosion took me other things would be entirely impossible. May I ask whether you abstain from the company that practice when a deputy asks for a report upon his work?

4074. Q That is Bailey's case? A Yes.

4074b. I do not think that it is proper that such a matter as that should be argued before the Court. I do not think it is within the scope of the Inquiry.

Examined by Mr. Robertson —

4075. Q In the evidence before the Court's Court you said this, "To show that a fall of very hard stone has been suggested of getting you without the intervention of any light. I do not at present intend myself to that view; I hold it as my authority, I will bring you the book before to me." — has a you got it? A It simply means to prove that explosion need be done with the old Thos. The coal passed by the Wagoner Bayly, when he said it was pointed by Mr. Thomas Southern — (interrupted).

4075. I know that now.

4076. Mr. Robertson. A He was produced in 1886, and did not leave out the contents of the witness.

4076b. Mr. Robertson. Q You think that with perfect ventilation safety lamps may not be necessary? A I believe that. We have too much about the introduction of safety lamps, and it would seem as if safety lamps were going to be made an apology for bad ventilation.

4077. Q Is not that contrary to experience? A I do not think so.

4078. Q Do you not know that where the men work with safety lamps there is better ventilation? A (Answering again) are always better ventilated. If instead of improving the ventilation you put in safety lamps you will destroy the system of ventilation.

4079. Q Even in the most perfectly conducted mine, and with the most perfect system, may not some unexpected matter arise, such as the opening of a door or the falling of a beam, or anything else outside the normal ventilation of a mine? A Yes.

4080. Q As a matter of fact, safety lamps are never introduced into a mine? A Safety lamps are not intended as a remedy for bad ventilation.

4081. Q I mean that safety lamps are never introduced into a mine for the purpose of working in gas? A No.

4082. Q Then what are they introduced for, if it is not to provide for contingencies that may arise in the best regulated mine? A They are introduced into mines where it is not safe to work with open lights.

4083. Q I mean that with the most perfect system of ventilation, and the most perfect system of management, gas may sometimes? A With it is under very rare circumstances.

4084. Q Do you think so? A Under the conditions where open lights are used. I am speaking of Durham and Northern mines, where the whole face is cleared, completely worked with open lights, and the gals with safety lamps.

4085. Q Would with closed lights? A Yes.

4086. Q Are you aware that the closed light system has been condemned by competent authorities? A It all depends on the authority. Take Durham, where I think they produce 40,000,000 tons of coal, and the system has been open lights at the face and safety lamps at the gal.

4087. Q Do you say that in Northumberland the closed system up to the present has been called light at the face? A Yes.

4088. Q I thought I knew a good deal, but I confess my ignorance of that? A I think they produce 40,000,000 tons there.

4089. Q You consider that, under ordinary circumstances, efficient ventilation will meet the case—that is, under ordinary conditions and with an ordinary quantity of gas? A I consider that open lights and good ventilation are the best means of preventing the causes of explosions.

4090. Q Is it not a fact that accidents frequently occur in mines which are moderately gassy? A Yes, where the ventilation is neglected.

4091. Q With respect to the reputation of districts, will you tell me whether the system in New South Wales is different from that prevailing in the Old Country? A The system in the Old Country is very bad. That here is not worse. It is better.

4092. Q In what respects is the system in the Old Country bad? A The system has been to appoint a Chief Inspector for a district, and to appoint two or three young men who have not had any much experience, and they are taken care of by the Chief Inspector, but the proposed system is, I think, to make each man responsible for his own district, and then you have a more effective system.

4093. Q You would subdivide the district and divide into a number of separate districts? A Yes.

4094. Q Do you know whether fault has been found with the system in the Old Country? A I would like to give you an illustration. I was last year in my last winter in England, and have seen the Inspector.

4095. Q That does not mean a change to separate districts—do you mean there are not sufficient Inspectors? A I desire to show that separate District Inspectors should be individually responsible.

4096. Q You would not have more Inspectors without more Inspectors? A I would not like to say that.

4097. Q We assume that the Inspectors are doing their duty? A Let me show you a case where a proper system of inspection would prevent explosions.

4098. Q This is a matter of fact? A Now, take the Burnwood, and the other mines making five lamps. You would expect the Inspector, when visiting there, to see how the ventilation was carried out, and whether the air currents were efficient, and to see into other matters, if not, it is time the inspection was carried out properly.

4099. Q Do you consider that the Kibbly case was dangerous? I mean before the accident, it is dangerous to be who after the accident? A It was not my duty. The conditions are sufficient, and are, having seen the place — (interrupted).

4100. Q Did you consider this a dangerous mine? A It was not in my province to think of it.

4101. Q You must answer me? A I cannot say so or no. It was not in my province.

4102. Q Did you ever hear it described as such? A No.

Examined by Mr. Butler—

4020 Q Is that the only system on the workings which was defective—I mean the single down being defective? A That single down was defective and dangerous.

4021 Q Do you regard that as neglect on the part of the Manager or the Inspectors? A Where the Manager overlooks a defect, the Inspector might be sure that it was noticed.

4022 Q In this case, where they find a defect it is not reported, how would you regard the inspection? A I would regard it as defective. The quantity of gas goes on off then is ought to have been known. It ought to have been known that the conditions under which the gas is now worked were dangerous, and the conditions of the furnace and its combustion ought to have been well known by the Inspector.

4023 Q Had some of these well-known defects been remedied? A Yes these would have been done, because of the furnace.

4024 Q What are the defects of the furnace? A The furnace under present conditions may produce 30,000 cubic feet of gas in day and 14,000 in night. I say that there is a great deal of gas in the furnace; and there are two circumstances under which you could have that. One is within nature of temperature, and the other with the wind coming from the work. Either will point to a danger.

4025 Q Do you think it was wise for a manager who knew the gas service had been removed to allow the furnace to continue at work? A It would be unsafe.

4026 Q I think you said something about Inspectors. Are I understand you to estimate the abilities of the present chief inspectors appointed by the select? A Yes, with a view of making the best possible inspection more effective.

4027 Q How? A By independent Inspectors, Deputies.

4028 Q Would you have more of them? A Yes.

4029 Q Do you think the number of inspectors was sufficient? A What is the use of a number of men if you do not detect a gas leak, when 1 per cent is dangerous?

4030 Q Do you mean the efficiency and the work? A Yes, I am speaking of their effectiveness.

4031 Q Do you mean that the present system is not efficient? A It is not effective, and it is dangerous.

4032 Q Just give us the points where it is inefficient? A I say that the conditions of the work in the furnace ought to have been known by the Inspector—the percentage of gas ought to have been known by the Inspector—and the conditions of the down should have been known by the Inspector.

4033 Q What method is adopted by a present Inspector when they go to a colliery to examine? A I do not know. I cannot tell you. I only know from their results.

4034 Q And you are not, because of the results and the conditions shown by the plan, that their method is not satisfactory? A I judge by the results.

4035 Q The Inspector says you in by the fact that in the last year in this district happened to be not as much improved? A The chief inspectors should have a qualification in the district. They should hold a first class certificate. If they are not, then the other should be qualified, and that the nation.

Instead of having themselves to do the work, which was separate duties, and unnecessary to be concerned in inspection.

4036 Q You know that there are now working in the pit who have until now of competency? A I know that there are bright men, and I suppose many, working in the pit, out of whom have certificates.

4037 Q Do you think they would be useful? A I think they have passed the test, yes.

4038 Q If the men think it is a good idea, to speak a word of that kind in the present, do you think it would be proper? A It would be a possible thing to do, but why should the men take themselves when they can get the work done otherwise?

4039 Q Would it not mean your view of a man is that the work is done present, but something "missing" requires from having others to check, especially? A I think that would be well, and then you could select men who have had back practice and theoretical experience.

4040 Q Do you think that the men would be not sufficiently good? A The most efficient method would be to select the present and introduce a system of independent inspectors.

4041 Q Do you not think it is a good practice for the men to have the power of appointing officers of the kind I have mentioned? A It is a good practice. They could select their own men and be more satisfied.

4042 Q What I mean is that the men say to the Inspector that the Manager and the Inspectors are doing their work properly, but if they will appoint their own men to make an inspection they might discover that the examination by the Inspector was not good and efficient. Do you not think that it would be a good provision to enable these workers to have this power to find out information and for themselves?

A When this provision was first considered it was very popular with the workmen. I had a great opinion of it, and it was the best. But having been submitted to the public, it was found that the men do not seem to report the result of a mine. I will not say that they are always less than where the Manager is employed, but they know that a second man is not for the best.

4043 Q Even although there are a number who hold first class certificates, and are fully competent, they would be afraid to report where they had something out against the Company? A The trouble would be that if these men accepted positions under the workmen they would have a division of getting work under the present.

4044 Q You think that if they tell him that something is wrong they would not, but that some, like the position if it was offered to them? A Yes.

4045 Q Now, with regard to what you said about safety lamps. Supposing a man was to suddenly possess a large quantity of gas, would you say that it would be wise that safety lamps should be used? The management are of a different opinion, and would not want it. Is that one who should have the authority to determine whether safety-lamps should be used or not? Supposing the man is not an Inspector or not the man in the mine, and the management on the other hand say not? A It is a very difficult point.

4046 Q I would like to know your opinion? A My opinion is that nothing should be done to remove it completely from the hands of the man.

4047 Q In this case the workmen would have to examine work under conditions which they thought dangerous, and that might change the situation? A The Inspector, when his attention was drawn to the matter, might draw the attention of the Manager to the serious condition, and ask him to remedy them.

Witnessed: May, 14, 1892, 1893

He might then use the safety lamps. But the Manager might have had twenty more years' experience than the Inspector. Just, for instance, take the case of a boy coming up to a mine where Mr. Robertson was Manager, and saying, "I think you ought to do so and so."

4132 Q We will assume that the conditions are dangerous. What would you do then? A There is a man of some effective Court. His House has suggested that an Inspector should get an order from the Court to put the safety lamps in the mine and let the matter go to arbitration. If the Manager found that to be dangerous, and the matter went against the Government, let them pay. But by all means hold the Manager responsible for the working of the mine.

4134 Q If a reasonable man, that the Inspector thought it necessary to have safety lamps, and the management held a different view—do you say that under those circumstances the man should be withdrawn from the mine and the matter referred to the Arbitration Court? A The Inspector should obtain an order from the Court compelling the men to work with lamps.

4135 Q What sort of Court would you have? A I suggested a Court, and I have suggested that whenever any trouble arises it should be referred to that Court.

4136 Q Do the men then would the inspectors take care and the matter was determined? A No; I do not believe in stopping men working.

4137 Q Have you ever heard of a railway where the miners requested to have safety lamps and the Manager refused? A That is just the

4138 Q Under conditions such as these, would you refer the question to the Court? A Yes.

4139 Mr. Robertson: With regard to check inspectors, are you aware that a great many inspectors have been made in this district by workmen? A I was under the impression that these were very few, and that the men did not take advantage of the privilege in the pit.

4140 Q I may tell you we feel that there have been a good many? A I was not aware of it.

4141 Q Can you tell me whether any persons have suffered or been distressed because of acting as inspectors? A I have no knowledge of it.

4142 Q Not at all? A Not at all.

4143 Q Can you say whether or not their presence has been welcomed by the Manager? A I never heard it mentioned in my personal any how.

Mr. ALEXANDER HELEN was sworn, and examined as under:—

Examination in chief by Mr. Lought:—

4144 Q What is your name? A. Alexander Helen.

4145 Q Are you a miner? A. I am not at present engaged in having coal—I am a brick-wright.

4146 Q Where are you engaged? A. At the Cornhill Colliery.

4147 Q What experience has a you had? A. Ten years.

4148 Q In this district? A. Yes.

4149 Q Where all? A. At Mount Pleasant and at Cornhill.

4150 Q Are you a member of the Delegation Board of the Miners' Union? A. I am.

4151 Q You are familiar with the circumstances made by that Board? A. I am.

4152 Q Now, dealing with the first—That Managers, &c. do managers, depots, and elsewhere, should hold certificates of competency by examination, and should have two years' practical mining experience before being eligible for these positions.—What do you say to that? A. I cordially agree with that recommendation.

4153 Q Have you any reasons to offer in support of it? A. Well, you, at the present time, I raise the opinion of mine-owners of the miners in this district in saying that there is a feeling of insecurity and dread, more especially since the Mount Pleasant disaster and the fire at Cornhill.

4154 Q Do you suggest in effect that, if these officials were only appointed by certificate after examination, that that sense of insecurity would be removed? A. I believe it would. I have no doubt that these officials are efficient and competent men. At the same time we have the dread that they may be utterly incompetent—I mean, when they are brought into contact with dangerous gases, and we want an examination to demonstrate whether they are competent or not.

4155 Q At the Cornhill Colliery are the officials certified as by examination? A. The Manager, I believe.

4156 Q And the other manager? A. I do not know.

4157 Q The deputies? A. I do not think so. I can be sure that they are not qualified by examination.

4158 Q Are the shot boys? A. With one exception I can say that they are not.

4159 Q And the procuring ones? A. He may be the exception I know to the contrary.

4160 Q Do you know whether there are any persons in this district who have qualified themselves by examination for any of these positions? A. Mr. Frost and Donald Cross Duffell, I know of several persons who are qualified.

4161 Q Are these men still working as well? A. Some of them are; and I think the majority of them are.

4162 Q What examination would you suggest that the deputies and shot boys should pass. Would you suggest the present beyond class Certificate examination? A. I hardly think it is necessary to go as high as that. Of course, at the present time the danger of gases is occupying our attention. They should understand and know where to find the different gases and know in what proportion they become dangerous.

4163 Q Can you give me the names of any of the men who have qualified for Second class Certificate? A. Yes, I can.

4164 Mr. Justice Stewart: Then evidence can be of no assistance to the Court.

4165 Mr. Justice: No, I do not think it is worth while troubling us with it.

4166 Mr. Justice: Q. You mentioned about a boy at Cornhill. Do you know what named he? A. I believe it was named by the day.

4167 Q What kind of lamps are you using? A. Safety lamps.

4168 Q Do you know whether before that there had been any gas discovered at Cornhill? A. In small quantities.

4169 Q Now it is proposed that the Inspector should be vested with absolute power to order the use of safety lamps? A. I think it is necessary they should have that power.

4169.

Q. Do you know under what particular circumstances that would have been benefited? A. No, not any particular circumstances. But I write that in the Attorney's report, he says, "That it is neither for safety that certain colliery women did not comply with the request that safety lamps should be introduced into the colliery", and he wound up by saying that "a grave responsibility rested upon the management," as appears in my pretty clear that in that case the Inspector did give me evidence in commendation.

Q. Was that statement made in a recent report? A. Yes, the report for 1905.

Q. Is this the statement—

It is rather for regret that arrangements have not been completed at the colliery for the use of safety lamps, as suggested previously with the condition of the men, they are not in a position to use of gas either in the mine, which, in fact, with the condition of the day is fast, and it is a serious question as to whether which may occur even the best regulated colliery. The Inspector's report is a grave one on the subject, however, as the management is aware, and is open to.

Now, is that the passage you refer to, upon page 126 of the Annual Report of the Department of Mines for 1905? A. Yes, and I can bring you that the introduction of safety lamps would mean a loss of 30 per cent. in our wages.

Q. Mr. Harris Smith? This has all been settled by the Arbitration Court.

Q. Mr. Lysaght? This evidence is of importance as applying to the introduction of safety lamps. I am trying to show the Commission that the introduction of safety lamps into a mine means a loss in wages to the men, and put the men who for the introduction for their own safety, which shows that they did not consider the matter of men where their safety is concerned.

Q. Mr. Harris Smith? This suggestion would never have been made were the Arbitration Court and that an additional wage were to be paid because safety lamps were used as a rule.

Q. Mr. Wade? In the past the miners involved upon being paid extra money if safety lamps were used, but now no extra money is paid.

Q. Mr. Harris? And do the miners still press for the use of safety lamps?

Q. Mr. Lysaght? Yes, they still press for them, although they would lose 25 per cent. of their wages.

Q. Mr. Wade? They do not lose 25 per cent. of their wages.

Q. Mr. Harris? Safety lamps are being continually improved, and miners will soon be able to work quite as well with safety lamps as with an open light.

Q. Mr. Harris? Any difficulty with connection with introducing? That is where the loss comes in. It is a difficulty having to do with the convenience of the miner.

Q. Mr. Harris? That may cause a little delay.

Q. Mr. Wade? I might be expected to call evidence to show that there is no loss.

Q. Mr. Harris? If Mr. Lysaght wishes to press the evidence, I do not think it is inadmissible. There has been suggestion as to possible want of bona fide on the part of the men in making the proposition, and it is proposed now to make facts which indicate that there is no want of bona fide. Is it indicated that Wade is in his right mind?

Q. Mr. Lysaght? The question is whether it will assist the Commission in any way. If it will not assist the Commission, I will not go to the evidence.

Q. Mr. Harris? I hardly think that this particular evidence will be of any use to us.

Q. Mr. Lysaght? Would the inspectors in the proper process to order the use of safety lamps? A. Yes; they are quite able to do so.

Q. It is recommended that violations by miners should be prohibited, and that there should be substantiated. What do you say to that? A. As regards my experience, I think that violations produced by a fine is for suppress. To first of the miners. As before, I tell you that in former conditions it is likely to be tolerated only by general resistance, or by changes in the temperature in the wind—which I have found in my experience to be a long task.

Q. Where was that experience gained? A. At Carlisle and at Mount Pleasant.

Q. What was the condition of the air supply? A. In Mount Pleasant it was very bad indeed.

Q. How long ago? A. Seven years.

Q. Could you get any special business? A. Well, Mackintosh had been present in such quantity that both my mine and myself have been prevented with it. Men were lying on our backs and running. We attributed that to black damp, which was present in large quantities.

Q. Was Mount Pleasant known to be a great mine? A. For cheap was known to exist there. I frequently see it, and called it.

Q. How long is it since you worked at Mount Pleasant? A. Between seven and eight years ago.

Q. Was this question of gas known to the officials, and you report it to my person? A. No; it was pretty generally known. One of the officials told me no more than one instance to leave my place not before I went to work in it.

Q. Who was he? A. Deputy Gallico. He is now under manager at Mount Pleasant Colliery.

Q. What did you learn from your place out with? A. With a lot of business, or my share, as the best thing that came handy.

Q. In addition to this black damp stretching you and your mine out, do you know of any other time when the air had been bad? A. I have seen gas quite in a bad way very often after going back to a mine that had been bad.

Q. Can you say whether any official knew of the gas finding? —[Interposed]

Q. Mr. Wade? He can say if he reported it to any officials.

Q. Mr. Harris? I cannot say how the knowledge of the officials at Mount Pleasant concerning the presence of gas in a mine can be of any service, so far as matters at Mount Pleasant are concerned. Of course it may be material, if that is the same case at all, to know whether gas is found in it. The questions now put to the witness is whether the officials at Mount Pleasant knew of the gas being present.

Q. Mr. Lysaght? The evidence is that at Mount Pleasant because no gas had been discovered for twelve months, no light was used. I suppose to show that in the mine all along the most gas was discovered, but no steps were taken to prevent the danger.

Q. Mr. Harris? Anything relating to the mine? It is material, but would the question of the gas being known to be suppressed in another mine have anything to do with it?

Q. Mr. Lysaght? I presume that it would, in relation to the inspectors. I want to come to the first of the inspectors not taking action when they know that gas had been found in the various collieries. 4.31

4205 *Mr. Macle* [The question is whether it is not easier to the Inspectors. If they are trusted persons selected by this Commission's determination—is it fair to seek to charge them with knowledge of gas, by posing a knowledge on the part of the most officials? That may be a knowledge which the Inspectors may obtain here before answer.]

4207 *Mr. Lyngby* [If the witness says that the presence of gas in the mine was known to the officials, should not the Inspectors also have known of it?]

4209 *Mr. Macle* [The question should be to whether the officials knew of it.]

4210 *Mr. Macle* [Mr. Lyngby states that knowledge coming to the minds of the officials should also come to the minds of the Inspectors. It does not follow that the gas and Inspectors could be affected by that knowledge, because they were not here then. These things happen of seven or eight years ago.]

4211 *Mr. Lyngby* [I can show from Mr. Atkinson's report for 1900 that during the year five days was reported, under General Rule IV, as references which included the Kensington, Bell, Cornhill, Bull, Pine, and Mount Pleasant, in the Southern or Western District. I propose to show to you that the Inspectors had the knowledge of the presence of gas, and took no steps whatever to prevent any outbreak of it, although they knew of it to the various mines.]

4212 *Mr. Macle* [What is the gist of this evidence?]

4213 *Mr. Lyngby* [I am showing that for a number of years gas has been in existence in the various mines on the coast.]

4214 *Mr. Macle* [That will not increase our knowledge on the matter. The question is whether gas has been known to be there recently. I do not know how you could strengthen your case by proving that gas was known in the days of Noah.]

4215 *Mr. Lyngby* [I will go on with another matter.]

4216 *Q* Do you know whether a fire has been celebrated at Mount Pleasant, and, if so, within what period? *A* Within the last few months.

4217 *Q* And what is the celebration at Cornhill? *A* A fire.

4218 *Q* When was it celebrated? *A* I am not sure—eighteen months ago. Perhaps more.

4219 *Q* Since the celebration of the fire, can you say anything as to what the condition of the mines have been? *A* I have not worked before ground myself, but the men have exposed themselves as being well satisfied with the air as at present.

4220 *Q* When you did work before ground, what was the condition of the air? *A* Generally good.

4221 *Mr. Macle* [There is no statement that ventilation by fans is not better than ventilation by furnace. We know that the fan gives much better ventilation; and the only question is whether any legislation could properly be introduced to compulsorily introduce fans for working furnaces.]

4222 *Mr. Lyngby* [I propose later on to show that in Prussia and Belgium there are Acts of Parliament prohibiting the use of furnaces for the ventilation of mines.]

4223 *Q* There is a recommendation that all waste workings should be absolutely sealed off and surrounded by airtight stoppings, such returns being back to mine as connected with the intake? *A* We considered that question and many others, and we considered that it was essential to our safety that the air from these waste workings should not be connected with the intake, inasmuch as we know that waste workings are liable at any time to give off poisonous gas, which, if they come into the intake, would go round probably to every man in the mine.

4224 *Q* It is suggested that all places, except prospecting drives, should have cut throats not more than 35 yards apart? *A* I think that that suggestion is brought forward as a consequence of their being a suggestion to drive far apart. Thus, the old regulation of 25 yards, which need to be the maximum distance. We recognize the fact that, where there is such a large distance between a bottom shaft it has been 30 to 35 per cent in quantity. I notice that Mr. Atkinson deals with the matter of ventilation in his report. I have seen bottom shafts put up when you might as well have had none setting. It was some distance from the face in several places.

4225 *Q* Is what evidence was that? *A* In Mount Pleasant.

4226 *Q* Is this Mr. Atkinson's report to which you are referring? It is on page 170 of the Annual Report for 1900—

4227 *A* In the mine where the shaft are of considerable length and the working places extend a mile from the shaft, great care is to be given to the shafts by daily stopping and careful return. Many of the new and deeper shafts are built with double, well, though planned with metal has for long as right.

4228 *Q* In your opinion would there be any danger to the safety of the road through cut throats being 40 yards distance from each other? *A* Not in any road that I have had personal experience of. I have never known a road that looks.

4229 *Q* It is recommended that inspection should be made with look at safety lamps in all cases, but I think that that is agreed to, and there is also a proposition that, specially examinations and reports should be made by competent and District Inspectors with the highest class of the shaft of the recommendation for the purpose of being the under-quarry of gas which may exist. We know that if a ordinary safety lamp will not regulate anything below 3, or 3 per cent. We want to obtain a knowledge of the presence of gas, however small the quantity may be.

4230 *Q* Can you say anything about a weekly measurement of air being taken in each mine, and that a report should be sent to the Inspectors? *A* I think that suggestion is put in operation in several instances, such the surveys of the report brought to the Inspectors.

4231 *Q* In the fact that it is weekly inspection, but it is not being for a weekly one. Now, where would you have the measurements taken? *A* Measurements are only taken in the intake and the different rights.

4232 *Q* Would that be sufficient? *A* If the lighting and the stoppings were all right it would be; if not, I should like the measurements taken in the numerous workings.

4233 *Q* It is recommended that an extra supply of safety lamps and their accessories, equal to one-third of the number of persons employed below ground, should be kept constantly in good order and ready for use? *A* That is a suggestion which I appear of very much. On the occasion of the Mount Pleasant explosion the majority of the lamps at Cornhill were taken to Cornhill. If anything had happened at Cornhill, we should have been in a very serious position, because we would not have had the reserve lamps. The same may apply to every district from which the lamps were taken away.

4320 Q. How long after the Kniffin accident was it that the fire at Central occurred? A. About two weeks.

4321 Q. Do you know whether the lamps had been reset and? A. I do not know.

4322 Q. Do you know as to the condition of the lamps at Kniffin's? A. No.

4323 Q. There is a recommendation that smoking and drinking stands, and other places necessary, should be properly watered,—what do you say to that? A. I think it is very essential indeed. I know that the fire is very much caused by the smoke. If it is a dusty travelling road, and where they are following their horses that they can hardly see that way into it and out of it.

4324 Q. Has that been your experience? A. Yes, it would almost choke a man travelling when horses are about.

4325 Q. Now, where are the stands kept by the men? A. In the working force.

4326 Q. And what was the light to stand? A. Open and free light.

4327 Q. There is also a proposition that Managers should be compelled to go more personal and attend to the management of the Colliery,—now, how often have you seen your Manager there? A. I was working at Mount Pleasant three years, and I do not recollect seeing the Head Manager there more during the time I was there.

4328 Q. And at Central? A. I remember seeing him once or two years.

4329 Q. It is recommended that the use of the explosives should be stopped,—what is your experience about that? A. I have often been impressed with the fact that the matches were not sufficiently long. These old men would be going out. The working men, we also the explosives used. Two or three men, or half a dozen men, would make a rush for one safety-lamp, and we would be rather cramped. Hence, the suggestion that they should be increased in size.

4330 Q. Were the new thing used and the last lamp such the same? A. Yes.

4331 Q. To what was you, you have them increased? A. To a sixth of a foot.

4332 Q. It is recommended that instructions should be given to the employees regularly on the nature of escape,—how many means of escape do you know of at Mount Pleasant? A. I worked there three years; I know of only one—the way I went to is the morning. I know of no other way out.

4333 Q. At Central? A. I was well acquainted with all the exits from Central.

4334 Q. Did you ever assist those to you? A. Well, no, we used to knock through the bars and find the shortest way out to our homes.

4335 Q. Is there any other reason which you would give as another support of that recommendation,—I should like to know who should give you the instructions? A. I think it is a matter in which the deputies might give instructions, say, once a week or once a fortnight. I have noticed that Mr. Edmonson has suggested that guide-books should be sent.

4336 Q. Is this Mr. Edmonson's suggestion?

A. In the case of a fire taking place in a mine, it is desirable that the workers should be acquainted with the road leading to the second outlet, and where the roads are all going but all guide-books should be placed to direct them.—
—I. A. Yes.

4337 Q. It is recommended that the Coal mines should be divided into black list of any boys being kept, and should prohibit the employer from the kind of discharged persons employed,—what law you say on this matter? A. We have a rule of being prohibited. It is a matter of the day to explain,—but we have that so far, and there is no doubt that it is doing but nothing, and it is not very easy to say.

4338 Q. Do you know of any particular instances where the men have obtained from reporting defects of management, or dangerous conditions,—[Laughter]

4339 Mr. [Name] I ask if you know the names of the men that the men should be brought here.

4340 Mr. [Name] I think an answer could be given as to a general case with the names, and he could be asked the names afterwards. He is being asked now whether he knows of any.

4341 Mr. [Name] We do not want the men thrown upon us, by jumping forward witnesses, to contradict these statements.

4342 Mr. [Name] Q. An answer, yes or no, might be given? A. I have suffered in that way myself. In cases where money and things were lost, back I have suffered loss rather than prosecute my position by complaint.

4343 Q. At what Colliery? A. Central.

4344 Q. Recently? A. When working in coal for coal a half year ago.

4345 Mr. [Name] That is not a black list.

4346 Mr. [Name] Q. Do you know of any cases where men have been dismissed or prevented from obtaining other employment? A. I read nothing of my own knowledge.

4347 Q. You were giving us instances of where you had obtained from making complaints? A. Yes, I can give you some.

4348 Mr. [Name] I think the evidence is absolutely maintained.

4349 Mr. [Name] It was a threat of dismissal held out by the management.

4350 Mr. [Name] I suppose to hinder this evidence, or it shows it's a state of terrorism that exists in the ranks of the men.

4351 Mr. [Name] We do not know with the evidence.

4352 Mr. [Name] Q. Do you give us any instance of a person obtaining from reporting a thing for fear of dismissal? A. The specific question is whether I know of anyone being dismissed for failing to report.

4353 Q. Do you know of any threats being held out to a man of dismissal for making, or not making any demand on the proprietors for things which they were entitled to?

4354 Mr. [Name] That is a different thing entirely.

4355 Mr. [Name] It is a wrong threat.

4356 Mr. [Name] I do not see how you can carry this matter further by giving a few instances of men who had disputes with the management, and who afterwards were in a worse position than if they had not had any disputes. Edmonson tells a story of a man who was in a very bad way that a Manager turned the wheel, Edmonson tells a man who has quarrelled with him.

4357 Mr. [Name] Included in the ranks of the proprietors for the Government to request on any matter affecting the management of collieries. If this is a case of terrorism, it is a very serious one if it is to be brought before the Government, which might be a means of providing with things in the future.

4198 *Also there*—That is, speaking generally, of course; but one or two cases would only prove what is already self-evident. This is really a matter of evidence than if it were shown to the Commission that this mine had already been legislated upon in other parts of the world. At the same time, if it can be shown that there are any dangerous conditions in such as to go into the matter.

4199 *My friend*—The same question was raised in the Arbitration Court, and it came to nothing.

4200 *My friend*—I think I can give you a number of cases. I can show that a number of witnesses have not reported things for fear of dismissal, and because of an intention that it was not wanted that things should be reported.

4201 *Q* What was the experience which you were giving? *A* That occurred in my capacity as chief weighman. I sat as agent for the mine. I sat at their weighman, and any case of dispute is settled between myself and the Manager or myself and the weighman. A man had been found a considerable amount for his. After coming the weighman, I spoke to the Manager, and I said, "I question your legal right to make any law whatever as to stop my money." The Manager said, "You cannot question my legal right to dismiss the man." I responded to the man the reply I got, and consequently he did not take any action.

4202 *Q* Who was the Manager? *A* Mr. Belts.

4203 *Q* And the refinery? *A* Cornwell.

4204 *Q* How long ago? *A* Two years.

4205 *Q* Now, I will ask you if you have anything to say about the recommendation that safety lamps ought not to be introduced for that? *A* I think it is evident that this is necessary. I think the reason has been to remove the lamps, and I think that this position is dangerous with inflammable gas.

Continued by Mr. Wade —

4206 *Q* You know that the question of dealing with dirt has been troubling the Cornwell Refinery for some years? *A* Yes.

4207 *Q* There was a difference between the man and the Manager how to stop it? *A* No.

4208 *Q* Did the Manager complain? *A* He did not.

4209 *Q* Frequently? *A* What would you call frequently?

4210 *Q* Frequently? *A* Not to say often.

4211 *Q* Have not representations been made to the Mine's Lodge? *A* Yes.

4212 *Q* Did not believe up, "If you men will go on doing dirt I will make you", did he say that? *A* Not that I am aware of.

4213 *Q* Do you not know that a deputation from the Lodge agreed in the principle of firing? *A* That is not correct.

4214 *Q* Was it not then—Mr. Belts wanted to insist on the coal being sent up without dirt? *A* That is an entire responsibility.

4215 *Q* Did he ask for it? *A* No. He would not ask for anything to be responsible.

4216 *Q* Does he say that? *A* Yes.

4217 *Q* He wants to get the coal clean? *A* Yes.

4218 *Q* Did he say, "If the men agree to a fire, well and good; if they will not agree, it is better to dismiss them"? *A* They would not agree; they did not think it equitable. I put it to him, "Dismiss the men", and he refused.

4219 *Q* When you talk about his saying, "You cannot question my legal right to dismiss the men," was it not in reference upon the men the necessity of sending the coal up clean? *A* It was a threat.

4220 *Q* To force the sending up of clean coal, was it not then saying and the other dismissed? *A* Yes, the fire was the first step.

4221 *Q* You complained that the system was unfair? *A* Not the system.

4222 *Q* That the amount was unfair? *A* That is something like it.

4223 *Q* You did not question his right as to dismissal? *A* He was firing them.

4224 *Q* When you complained about the legality of his action, did he not say he would feel back upon his legal right if it was not allowed to him. Is not that the rule and substance of the whole thing? *A* That is it.

4225 *Q* Now do you remember where you found this gas in Mount Pleasant? *A* It was in loading room.

4226 *Q* Were you just opening it up? *A* Yes, a few inches from the surface.

4227 *Q* You were driving a loading? *A* We were driving a loading.

4228 *Q* How long were you working in that district? *A* I only worked in that particular spot for that space.

4229 *Q* You did not report this gas? *A* I did not make any specific report.

4230 *Q* Did you or not? *A* I cannot say. I must likely do.

4231 *Q* Did you say, "I am a few inches, and have often reported it, but did not report it"? *A* I did not make any specific report.

4232 *Q* Do you mean a thing looked like a beautiful look? *A* Do you report it in any official? *A* I cannot say from my memory.

4233 *Q* Was this a few days before you had found it in the fire? *A* Oh, no, broken was used at that time.

4234 *Q* Was it before the new Act came into force? *A* Yes.

4235 *Q* Whereabouts in the fire at Cornwell—where is it placed? *A* Near the surface, on the surface, every.

4236 *Q* What protection has that fire got in case of an explosion? *A* Well, let me see—[Interrupted]

4237 *Q* Is there only some small gas-vent in an area? *A* The fire itself would be safe, it is considerably lower than the surface in the drive.

4238 *Q* Is it open to an explosion? *A* An explosion would go where it would find the weakest surface.

4239 *Q* Would the explosion come there? *A* It would go where the given surface is. It is given surface and well-known.

4240 *Q* That is the only protection? *A* I believe so.

4241 *Q* You saw the risk, of an explosion run along there, of damaging the fire? *A* It would, but the Coal Mines Act provides that they shall not be placed in a position where an explosion shall damage them.

4242.

1206 Q. Now, what is your record since the Corralled fire—when do you mean by that? A. My record is based on reports in the Press of the number given at the inquest, and it was that some of the witnesses held positions. (Interjection.)

1207 Q. But you told since the Corralled fire? A. The Corralled fire, and the Corralled fire.

1210 Q. I will take the Corralled fire first. A. As far as that, I imagined the place where the fire occurred had been vacant before the accident. My record was that. It was so mentioned it was not discussed properly, or by competent persons, due to this. The two periods, the examination and the fire, were only about twenty minutes apart, I believe.

1211 Q. Mr. Bruce Smith? A. Twenty minutes between the examination and the accident? A. Yes.

1212 Q. Mr. Webb? Did you satisfy yourself that the men were not competent? A. I do not go that far.

1213 Q. Did you follow the accident up, and ascertain how it happened, and how the gas came out of the workshop? A. I have suggested, but I do not know whether I got the right story.

1214 Q. Was it proved that the work should be done carefully, or that no such men could not find the gas? A. I must admit generally that these men are competent.

1215 Q. You cannot say that these men are not competent? A. I can give you no proof. I would like to have more proof that a man is a competent man.

1216 Q. How long has he been at work? A. I have got some in contact with the under manager or deputy the last few years.

1217 Q. How long has he been so often at the mine? A. There were several engaged in the examination.

1218 Q. How long is the shortest period which one of these had been there? A. Nine months.

1219 Q. And the longest period? A. Oh, many years.

1220 Q. And you cannot tell whether a man is competent? A. The occasion may never arise to test a man.

1221 Q. During that period nothing ever happens to show whether a man was competent? A. No.

Cross-examination by Mr. Bruce Smith.—

1222 Q. You spoke of the officials at the Corralled Mine? A. Yes.

1223 Q. Which do you say are holding certificates? The Manager is one, what about the underground manager? A. I cannot say.

1224 Q. It is not the knowledge that men are employed without a certificate which causes you to fear? A. No.

1225 Q. It is only because you do not know that they have passed an examination that you are fearful? A. Yes, we are not sure.

1226 Q. What mine are you at now? A. Corralled.

1227 Q. You do not mention Mount Pleasant. Do you know that men who hold important positions at Mount Pleasant, passed examinations? A. I do not think they do.

1228 Q. Why did you not include Mount Pleasant among the collieries in which you find no confidence? A. The mine closed with a reply in every safety in the district.

1229 Q. Did it apply when you were at Mount Pleasant? A. At that time I was not concerned with the danger of different gases.

1230 Q. It is not from knowledge of their incompetency that you experienced this fear? A. There is no incompetency to me as knowledge.

1231 Q. Have any of the officials at the Corralled Mine displayed any work of experiment that you saw none? A. I will not go so far as to say that.

1232 Q. I suppose that every accident on a ship, railway, or coal mine, produces some sort of panic in the minds of the people? A. Yes, but it is more than twelve months ago since I recognized the importance of these things which I am speaking to you about.

1233 Q. You tell the Commission that the local has been since three two division?—I suppose you know it is a dangerous undertaking and mining? A. Yes.

1234 Q. Now, you know there is a proposition, that an Inspector should have the power to order the use of safety lamps? Do you think the Inspector should have the absolute power to order them? A. Yes.

1235 Q. Without giving the mine owners an opportunity of saying something on the other side? A. We make the Inspector in his own principle, and of great experience.

1236 Q. Do you know that whatever an Inspector says they go on in a mine that appears to be dangerous to me, and as the Manager to take certain steps, and if the Manager wishes he can take serious under the Arbitration Act? A. And in the meantime the men may get blown up.

1237 Q. You know of that proposition? A. No; I don't say it is there.

1238 Q. Your idea is that if the Inspector causes the accidents that safety lamps ought to be used, he should have the power to order them, not only as he was suggested? A. Yes.

1239 Q. Now, I want to know how far you thought three reformers? I am did not take part in the formulation of these suggestions? A. I did not say that I formulated them, I made suggestions.

1240 Q. It did not emanate from you originally? I want the Commission to see how far you thought this matter out. Do you believe that the Chief Inspector or the local Inspector should have the power? A. I suppose the District Inspector would not take steps without consulting his superior officer.

1241 Q. You are assuming that he would first consult the Chief Inspector? A. Yes.

1242 Q. Your suggestion is, that the local Inspector should have the power, subject to the approval of the Chief Inspector? A. That is what it amounts to.

1243 Q. Have you made any special study of the difficulties between prohibition, by law and the present mode of prohibition by force? A. No.

1244 Q. Now as to work stoppages. The understanding here you that work stoppages should be completely ended off, so that they are not to be connected with the strike? The working of the recommendations is that the workers shall be absolutely ended off? Do you intend yourself to that? A. No, not absolutely.

1245 Q. With more men there in open into the accident? A. That is all I want.

1246 Q. With regard to the safety lamps, I would like to know it is considering the provision that an extra supply of safety lamps and expenses equal to one third of the number of men employed below ground be kept in good order and ready for use, you mean to include all miners which safety lamps are required to be used regularly? A. Yes.

1247 Q. Take a case with 300 men working in a mine, what do you require—that 180 lamps should be kept; that is, 100 in reserve of those actually required? A. Yes.

1248 Q. These 300 men would mean 420 lamps? A. That is the proposal.

- 4317 Q Where there are 350 men in the mine in two shifts, and one shift is in the mine, how many lamps would there be over? A In the middle of thirty they would be none left.
- 4318 Q For how long? A From the hours of 5 and 8.
- 4319 Q The whole 350 would be in the mine? A Yes.
- 4320 Q And what you suggest is an extra hundred? A Yes.
- 4321 Q Do you suggest that they should be kept silent, and silent, and trained? A All ready for lighting.
- 4322 Q You want the oil kept in there, and the wicks lighted? A We want them to have the material ready.
- 4323 Q Do you think it practical to shut in extra hundred lamps should be kept by any company consistently? A No, and oil, and the wicks ready to be lighted? A I would not go so far as that, I am satisfied if the material is there.
- 4324 Q Now take the case of a mine in which lamps are not used, with 300 men working in it,—what extra quantity would you suggest there? A The same proportion as where the lamps are used.
- 4325 Q It would be a quantity equal to one-third of the number of persons employed below ground,—and an extra quantity of lamps? A Yes.
- 4326 Q You want them trained? A Yes.
- 4327 Q How long will that take? A A good while.
- 4328 Q That is something like saying, 'A lamp of chalk,'—how long would it take? A It would take about a month, or two months if there were drip places.
- 4329 Q Now as to the watering,—have you thought that out? A Yes.
- 4330 Q What is the suggestion,—to water the mine to keep down the dust? A I believe the suggestion is made owing to an improvement at South Hully, where they water the mine with a very fine spray, which comes from the air, and the air motions the dust.
- 4331 Q Think just one of water,—where is the water supplied? A On the floor passively.
- 4332 Q You have recommended that the machines should be changed, based on an experiment gained in mines in which the quantity of coal and the quantity of air is not? A Yes.
- 4333 Q At what speed in these mines do the engines turn, 15 miles an hour, or, roughly, 8 miles an hour, or 10 miles? A That would be the speed, 8 to 10 miles per hour.
- 4334 Q Do you say that that mine is the Central Mine? A Yes.
- 4335 Q At what rate do the ships go? A It is not the ships, but the cars and the horses.
- 4336 Q In the Mount Pleasant Mine, that is not used by the watering of the ship, but by the men walking in? A Steps even do that, and the men and horses also.
- 4337 Q Having you any more that is in Central? A Yes.
- 4338 Q Baked by the ship? A I do not mention the ship at all, but the men and the horses.
- 4339 Q Now, do you suggest that where there is a traveling road you should have the selected machines? A The machines do not come so easily there.
- 4340 Q As to the instant upon to be given to the men, will you propose that time should be given—that is the way out of the mine? A It is simply a proposal that a deputy say take charge of a signal or whistle, or not employed in a heading, or knocking off time, and show them the different ways out of the mine.
- 4341 Q Would a mine give the time that was involved in going out of the mine another way? A Yes, I think he would.
- 4342 Q That is, supposing that it involved an extra time,—suppose it involved his going out of the mine at Kanika and working round the Kanika? A I do not suppose you would make it compulsory. I am quite satisfied that the majority of men would do so.
- 4343 Q How do you account for some of the statements made with regard to men desiring to set as chief inspectors? A They are not in a sufficiently important position to make the inspection.
- 4344 Q Is that the real reason? A I think so.
- 4345 Q Is it not the question of payment? A No.
- 4346 Q Does not that arise also—are they not paid by the other miners? A That question has nothing to do with it.
- 4347 Q The principal difficulty is that if these men report the state of things as unfavorable to the management it would injure them? A I believe that to be a fact.
- 4348 Q You believe that—that is your opinion? A That is my opinion is the matter.
- 4349 Q How long it is since you knew of an inspection at the Mount Pleasant Mine? A I do not work there, the pit was not in force when I worked there.
- 4350 Q In Central? A Once in two years.
- 4351 Q Do these reports? A I do not know.
- 4352 Q Have you seen a report? A No, I do not know whether it is favorable or unfavorable.
- 4353 Q You do not consider the being either favorable or unfavorable to the management? A No.
- 4354 Q Do you know one man who has not asked to be shown out by the other ways, in the mine that you have been in? A I do not consider those ever asking to be shown out. I have known them to ask to be allowed to travel a road, and to travel to the daylight exit, and they have been refused, and there has been a danger behind exit routes.
- 4355 Q You recall when you talk about it,—ship? A I do not know.
- 4356 Q Was there anything in the suggestion that men could get out of a mine before their time? A No, their wages depend on the time they stop.
- 4357 Q Do some of the men want to get away before their day's work is finished? A Not to my knowledge.
- 4358 Q There is these say things themselves about it? A No.
- 4359 Q Do you know of any man where they have asked to be shown out? A I do not know of any man where they have asked to get out.
- 4360 Q You require that, with every change of men, it would be necessary to inspect three shafts? A An official inspection would be all that is necessary. Mr. Atkinson made that suggestion—I mean the suggestion about placing lamps at different points in the mine.
- 4361 Q What do you think of that suggestion? A I think it is a very good one indeed.
- 4362 Q When this recommendation came up at the Delegates Board, did you know of that? A Yes.

4294. Q Did you suggest that that would be a better way than having three pilots to take the men out? A I think that both might be worked.

4295. Q With regard to the danger boats alone, would that be without direction of the vessel out there the wind? A No unless there was a vessel of them come at each time.

4296. Q And you ask if the men could also be shown the way out? A Yes.

4297. Q As to the suggestion that the men should have lanterns ready—was it accepted with it? A No.

4298. Q Was it refused? A A danger boat was placed on the landing, and the men would have to go under the danger boat.

[The Commission, at 4:20 p.m., adjourned until 10 o'clock the following morning.]

WEDNESDAY, 25 JANUARY, 1902.

[The Commission met at the Court House, Wellington.]

Present:—

C. E. B. MURRAY, Esq., D.C.J. (PRESIDENT).

D. A. W. ROBERTSON, Esq., Commissioner. D. RITCHIE, Esq., Commissioner.

Mr Bruce Smith, Barrister-at-Law, instructed by Mr Wood, Queen's Advocate's Office, appeared on behalf of the Crown.

Mr A. A. Allison, Chief Inspector of Customs, attended Mr Bruce Smith.

Mr A. A. Lyngby, Solicitor, appeared on behalf of—

- (a) the representatives of despatch agents, shippers, &c. (members of the association);
- (b) the employees of the Mount Kemble Calfway (owners of the boat *Arctik*); and
- (c) the Hibernian Shipping Company (owners of the steamer *Hibernia*).

Mr C. H. Wade, Barrister-at-Law, instructed by Mr F. Carter appeared on behalf of the Mount Kemble Coal and Oil Company (Proprietors of Mount Kemble Wood).

(Mr J. Garlick, Secretary to the Commission, was present to take shorthand notes of the evidence and proceedings.)

4299. Mr Lyngby: Have you formed any opinion, Mr J., as to, of our when your evidence will finish?

4300. Mr Lyngby: At Wellington?

4301. Mr Lyngby: Yes.

4302. Mr Lyngby: About Wednesday week. I have two witnesses from Christchurch whom I propose to call on Friday. If the Commission are going to sit at all on Thursday, I might call witnesses there in support of these recommendations of the Delegation Board. Until Mr Wade indicates how far he wants the recommendations, and until I know how Mr Bruce Smith requires, I must keep on waiting this evidence, and supporting it from other documents.

4303. Mr Lyngby: You cannot not settle the witnesses at Christchurch until we decide whether we wish to sit there or not.

4304. Mr Lyngby: If either of the Counsel could indicate to me, or if the Commission could indicate to me a general way, where I need not further burden these recommendations with evidence, I would be glad to save the time of the Commission.

4305. Mr Bruce Smith: The difficulty is the facts in which they are put. They are put in such an unimpeachable way.

4306. Mr Lyngby: It seems to me that the only reasons, given and not, for these recommendations have been given to the Court; and I am not going to take up any more testimony, unless some particular witness happens to give something outside those reasons that have been given which specially requires questioning.

4307. Mr Lyngby: There is no doubt that the general reasons for these various recommendations are endorsed by the Commission, and it may be that Mr Wade or Mr Bruce Smith may call evidence going more into detail and touching more on the question of expense, and that will do, in relation to these various suggestions which will be of great assistance to the Commission, whereas a repetition of the general evidence in favour of the various recommendations is not really of so much value. It is hardly possible to compress the value of a general recommendation by a label or it being repeated by an indefinite number of people.

4308. Mr Bruce Smith: The position I feel I am in is this:—On behalf of the Department I should not only not oppose, but I should like in my duty to write, any proposal which to offer any suggestions to the Court that they think fit. But I should feel it my duty to withhold any recommendation for the suggestions are founded upon actual knowledge of the facts. If I am asked here and now, "Well, the Delegation Board has recommended this, and therefore I endorse it," it does not mean with any more strength than that from the Delegation Board, but if it is suggested to me, who has not actually thought about these things, that you give more reasons for the suggestions, I will do my best to show that not for the information of the Commission. Then, with regard to assenting to any of these recommendations, there are very laid in their form, and they would be all; and they agree to have been recommended. I think, without any sufficient consideration for the interests of the industry. They appear to have only taken into consideration a possible persuasion for protecting the workers' lives; but I think it is also necessary to think of the circumstances, not whether the industry might not possibly be injured under these recommendations. Of course, one may give permission to such an extent that when that and a ship is on you and another ship alongside it—[*Inter-rupted*].

4309. Mr Lyngby: What you say is that on attempting to work this, you may sacrifice the broad and better which supports life.

4310. Mr Bruce Smith: Yes. I am looking at the possible industry, not only looking at the interests of the miners, but at those of the public, and of the owners. The second thing of these recommendations

Witness—J. Henry H. January 11, 1902

prevents me and Mr. Ashmun, as representing the Department, from consenting to anything in an amendment of them. It is quite possible, but not probable, that with regard to some of these there will be action, with conditions and modifications attached to them, and therefore it will be quite impossible for me to vote them. I might be saying, "Well, as far as I am concerned you need not call any more witnesses."

4185. *Mr. Dwyer* | I might suggest, too, that there is nothing to prevent the Delegates Board, if they think fit, from writing their own suggestions, or asking from some during the course of the inquiry.

4186. *Mr. Lynam* | They may make new suggestions, but I venture to say that they would not modify them, because I know they have very carefully considered them.

4187. *Mr. Dwyer* | That is a question entirely for them.

4188. *Mr. Lynam* | But Your Honor will accept from me any new recommendation they might send in and I will vote for it.

4189. *Mr. Dwyer* | Yes. It is suggested that the latter plan, in removing the evidence of most of the witnesses called by you, Mr. Lynam, is that you should write up a little quantity of error. I believe you are quite willing to do so.

4190. *Mr. Lynam* | Yes.

4191. *Mr. Dwyer* | Instead of the evidence being sent out to the witnesses, and evidence possibly arising, if you are willing to adopt that course, the Commission think it is the best course, on the suggestion of the Secretary.

4192. *Mr. Lynam* | Yes, Your Honor.

Mr. JOHN SWENEY was sworn, and examined as under:—

Examination in chief by Mr. Lynam:—

4193. *Q* What is your name? *A* John Sweeney.

4194. *Q* Where do you work? *A* South Bells.

4195. *Q* What are you? *A* A miner.

4196. *Q* Are you a member of the Delegates Board of the Blackmen Miners' Union? *A* Yes.

4197. *Q* What has been your mining experience, Mr. Sweeney? *A* Fifteen years, since I was first engaged in coal mining.

4198. *Q* In what capacities? *A* South Bells, Kumbula, Corriwell, South Bells.

4199. *Q* How long is it that you worked in Kumbula? *A* It is ten years since I worked in Kumbula.

4200. *Q* At that time did you know whether gas existed in Kumbula Mine? *A* I have no knowledge of any gas in Kumbula at that time.

4201. *Q* Were you at Mount Kumbula Mine the evening of the disaster? *A* No.

4202. *Q* Do you know anything about the disaster at all? *A* Nothing whatever; only the knowledge that there was in one section the fatal month.

4203. *Q* Now, regarding these recommendations No. 1, "Managers, under managers, dykemen, and therefore, to hold certificates of competency by examination, and to have had five years' practical experience, before being eligible for appointment as such." What do you say in support of that? *A* I do not say that, owing to the position, and the responsibility that rests on an individual as foreman and managing the working place, I consider it is necessary that they should have an expert knowledge of gas; that they should be able to test what quantity of gas is in the place, and whether it would be absolutely safe to fire a shot in the presence of it; and that they should also have a knowledge of the best conditions existing in that place, and whether, owing to the dust that was in the place, it would be possible to fire a shot.

4204. *Q* It is necessary that these foremen should have a knowledge of those conditions.

4205. *Q* Do you know whether the deputies and shot-bore at South Bells hold any certificates? *A* I do not know.

4206. *Q* What sort of lamps have you at South Bells? *A* Safety lamps in one section of the mine.

4207. *Q* And in the other section? *A* There lamps. Of course I am not working in the other section, but I understand they use four lamps.

4208. *Q* Do you know of the presence of any gas at South Bells? *A* I have seen the gas lighted in South Bells on one or two occasions.

4209. *Q* When? *A* Well, it would probably be about four months ago since I saw it last. It was just passing in the lamp going in.

4210. *Q* What that report of? *A* Yes. I told the deputy that we had hit a blow.

4211. *Mr. Dwyer* | What was near the Kumbula explosion? *A* Since the Kumbula explosion.

4212. *Mr. Lynam* | Q And before the disaster had you hit gas? *A* Yes. On one occasion before the disaster I also saw a blow hit in one heading.

4213. *Q* And that was reported? *A* Yes, to the deputy.

4214. *Q* To the superintendent? *A* No. It was in a different district.

4215. *Q* Who was the deputy that you last reported the gas to, after the disaster? *A* William Golding.

He was the night deputy.

4216. *Q* And the last one? *A* William Kumbula. And also Robert Wilson, he was the day deputy on the last evening.

4217. *Q* Now, was anything done by those deputies when you made the report? *A* Not that I know of, unless they brought the men as further to work the face.

4218. *Q* That is all you know? *A* Nothing else; that I know of at all.

4219. *Q* Do you believe No. 2—In relation to the fact that you are in order for safety lamps? What do you say to that? *A* I consider that, when the competent inspectors desire it, every man that safety lamps should be used, he should have the power to enter their own mine.

4220. *Q* Recommendations No. 3—"Foremen by license prohibited, and also restricted"? *A* Yes. I am now possibly in favour of restriction by time.

4221. *Q* What have you at South Bells? *A* Well, a few.

4222. *Q* How long has it been there? *A* I have no knowledge of how long it has been there; but it has been there during the last two years and a half in which I have worked there.

4223. *Q* Have you worked in collisions where there was only a furnace? *A* Yes. Indeed, South Bells was the only mine I have worked in where there was a furnace.

4224. *Q* What were the conditions of the air in the mines you worked in with a furnace? *A* In some cases the conditions were very bad.

4225.

4418. Q. What cases do you refer to? A. I most definitely remember one season in North Bull, when the air was very bad in the leading in which I worked.

4419. Q. How long ago was that? A. That is more twelve years ago now.

4420. Q. Do you know what they have now? A. The same is still.

4421. Q. Is there any other mine working with a furnace in which you know of the air being bad? A. No. At South Bull, on one occasion previous to the season of the last, the air was very warm there. Of course that is some time ago.

4422. Q. What was the condition at Cardinal when they had a furnace? A. Well, I have not a very good recollection of Cardinal owing to the length of time since I worked there.

4423. Q. And what were the conditions at Kenville? A. Oh, well as far as I can remember, the air conditions were satisfactory.

4424. Q. Recommendation No. 5.—"All plants except prospecting drives to have air throughout not more than 30 yards apart." What do you say to that? A. I should consider that it is very necessary to have underground air that distance. If you drive your workings a greater distance than 30 yards, you have three ways to drive the distance through the pillars, to try, if you have 30 yards between your workings, then before you get a connection you will have to drive another 10 or 15 yards before you get a connection through the pillars, and if you drive that, you will then be 40 yards ahead of the air.

4425. Q. What has been your experience of heating? A. It is not very effective, because it is not of a very substantial nature, and it is very easily disarranged, and there is always a certain amount of leakage before the air reaches the face. It leaks through the curtains, either over the top or underneath the curtains, owing to inequalities in the floor and irregularities in the roof. It is almost an impossibility to make it air tight.

4426. Q. And do you think there would be any danger to the coal in having it at the only only 30 yards apart? A. Oh, I do not think that it would make any great difference.

4427. Q. What is the longest drive that you have seen without a cut through, in your experience? A. I could not tell you. I really have no knowledge.

4428. Q. What is the average distance between cut throughs, in your experience? A. Well about 40 or 45 yards.

4429. Q. Recommendation No. 7.—"Monthly examination and report by deputies and District Inspector with signatures thereon." A. That would be in order to give the men working in the mine a feeling that they were in a certain degree of safety in the mine, by forcing that, owing to having the mine inspected frequently, there would be no great danger of accumulation of gas, or other manner pass that would be dangerous as to cause an explosion.

4430. Q. Do you know of a feeling of insecurity among the miners? A. Well, there is a feeling of fear at amongst the miners since Kenville exploded. The general feeling amongst the people was that Kenville was a safe mine and that we were working under much better conditions, and that the probabilities of such an occurrence as at Kenville or Bull were very remote, but the fact of the accident at Kenville having taken place has modified the feeling of security and confidence, and we are still of opinion that there is some cause for the apprehension.

4431. Q. Do you know of any other cases, besides the actual explosion, that has put the men in the state of fear? A. Well, yes; according to the evidence given before the Governor at the inquiry—that has caused the men to think that the evidence given by some individuals, perhaps, they have not got the correct idea that it is necessary that a Manager or overseer should have.

4432. Q. Recommendation No. 11.—"Weekly measurement of air in each section, and report thereof sent to Inspector." What do you say to that? A. Yes. I consider that there should be someone who would see that the necessary quantity of air is at all times travelling around the face of the workings.

4433. Q. And would you have the inspection made at the face of the workings? A. Most certainly. That is where we are working, and that is where we require the air—on the face of the workings.

4434. Q. Recommendation No. 12.—"Exact supply of safety lamps and their repairs, equal to one third the number of persons employed below ground, to be kept constantly in good order and ready for use." A. Yes, I consider it very necessary to have safety lamps, so that they may be got ready for use at the very shortest notice in case of accident, such as at Kenville or Bull.

4435. Q. Do you know whether there were any safety lamps at South Bull at the time of the Kenville disaster? A. Yes, there were lamps there. In fact I saw three parties go down to help away to Kenville.

4436. Q. What time was that? A. It would be about 3 o'clock, or near as I can remember.

4437. Q. And do you know whether they went off their lamps very? A. I could not say.

4438. Q. Recommendation No. 13.—"Traveling and baggage roads, and other places necessary, to be properly watered." What has been your experience as to dust on these collieries? A. My experience is that some of the travelling roads have been very dusty, and I have experienced at South Bull that the travelling road has been watered, and that it is very much more comfortable travelling these roads—[interrupted]

4439. A. At South Bull? Q. That is since Kenville? A. Since Kenville.

4440. A. At South Bull? Q. Do you know of any other mine where they watered the travelling roads? A. No.

4441. Q. Recommendation No. 14.—"Managers compelled to give more personal time and attention to management of colliery." What has been your experience as to Managers coming to your working place? A. Oh, so far as South Bull is individually concerned I think I have seen our Manager sufficiently often.

4442. Q. About how often? A. Well, do you ask voluntarily often? A. Well, I saw him once a week.

4443. Q. And the other collieries? A. Well, I have nothing to say in respect to the other collieries; because since I have worked in any other colliery since I was last employed, and it is not clear to my mind how often I saw the Managers in those cases.

4444. Q. Do you think once a week would be a reasonable and proper time for the Manager to visit the working face? A. Well, I think that once a week would be sufficient.

4445. Q. As a matter of fact, I think South Bull is the largest colliery in the Howards district? A. Yes.

4446. A. At Kenville? No.

4447. Q. How do you divide it as to the largest?

4448. A. As regards the employment of hands? A. Of course I could not recall as to which employs the most hands, but it is my opinion that there were more hands employed about South Bull than about any other mine in the district.

- 4479 Q And your Manager has been able to walk, according to your experience, over a wall? A I cannot say he has crossed the whole of the working place since a week. That is only my experience individually.
- 4480 Q Recommendation No. 25—"Size of manholes enlarged." What has been your experience since the size of manhole? A Well, it is some time since I ever had the necessity to use the manhole, but when it was the case of manholes I considered that the manholes were rather small. I have only one manhole in the case of the travelling road being the engine road.
- 4481 Q What gallery was that one? A At North Bull. Part of the travelling road was the engine road—the leading road.
- 4482 Q And what size do you say the manholes ought to be,—they have to be now 2 ft 6 in x 6 ft. A Well, I should say certainly that they should be about 6 feet wide.
- 4483 Q And what depth, how far back? A Oh, about 4 feet.
- 4484 Q Recommendation No. 18—"Instructions to employees regularly on means of escape." You might tell us in each of the galleries that you have been in how many means of escape did you know of? A Well, generally, only the two roads—the travelling road and the engine road. Of course, they were both very close to each other, and those are the only roads in the mine that ever I know.
- 4485 Q How much do you know about the roads from South Bull now? A I only know the one road one—the travelling road.
- 4486 Q Do you know if there are any other ways out? A I have reason to believe there is a daylight tunnel at Bull, driven to the surface.
- 4487 Q Do you know where it is,—would you find your way out that way? A I could not.
- 4488 Q Would would you have to give those instructions to—the men,—as to the way to go out? A I would have that to the deputy.
- 4489 Q When do you propose he should do it? A He should do it periodically after the mine had knocked off. He could arrange with the men what time he would lead them out that particular way.
- 4490 Q Recommendation No. 19—"Good mines Act to forbid a black list of employees being kept, and providing adequate protection of discharged persons obtaining employment." In your opinion would such a provision assist the better management of collieries,—what do you say regarding this proposal? A With regard to the black list.
- 4491 Q Yes, not to regard the proposal that a penalty should be provided for the superior protection of discharged persons obtaining employment? A I must certainly do not favour the existence of a black list,—by no means.
- 4492 Q Do you know whether there is any in existence, or whether there has been one, in this district? A I do not know, of my own personal experience. That is a thing that I have had no opportunity of knowing positively, whether such a thing exists or not, but I have an idea that such is the case. But I could not positively swear that such a thing exists, simply because I have no means of finding this out.
- 4493 Q And in what way would such a provision be an Act of Parliament assist the better management of collieries? A It would not in any way; that is a mere say anything going wrong with the working conditions of the industry, it would not be allowed to report it.
- 4494 Q In your opinion, no men should be reported thus now? A Well, that is the supposition—that men are afraid.
- 4495 Q Recommendation No. 22—"Safety lamps not to be carried for shooting." How are these done fired in South Bull? A They have a lamp in South Bull now for the purpose—a shooting lamp, and it is fired by inserting a wire through the lamp, and the wire is ignited by touch-paper.
- 4496 Q In your opinion, is it a very dangerous practice to collect a safety lamp to fire a shot? A It is most certainly a dangerous.

Cross-examination by Mr Wade—

- 4498 Q This statement of yours, that men are afraid to report things now is merely a suspicion—is it not,—purely suspicion? A Of course, it is purely suspicion.
- 4499 Q And the only instance you could give of a man who has reported things is your own case—is it not? A That is right.
- 4500 Q And you have made no statement about reporting gas? A No.
- 4501 Q And no trouble followed in you? A No.
- 4502 Q And you reported gas, as you say, both before Kanika disaster and since? A Just on at North Bull.
- 4503 Q Then, as far as you know, the deputies or their men took steps to increase the ventilation, by bringing the leading closer up to the face? A Yes.
- 4504 Q And succeeded in losing the desired effect,—you saw no more gas? A Oh, I do not know that it had the desired effect.
- 4505 Q Did you see any more gas (light)? A No. Simply because when once a man holds gas he takes every possible precaution, and the chance fire is would not gas again would be much smaller.
- 4506 Q Thus you were more careful? A Just so.
- 4507 Q How was the gas (light)? A It was in a heading.
- 4508 Q What had you been doing? A Working up the light to ensure the coal more closely.
- 4509 Q Had you just fired a shot? A No.
- 4510 Q Was it when you fired a shot? A No, we had been working.
- 4511 Q For what length of time were you working in Mount Kanika? A Not a great length of time.
- 4512 Q What is that? A About two months.
- 4513 Q In what part? A It was called No. 6 at that time.
- 4514 Q This would be in the shaft (discovery)? A I could not say what direction it is.
- 4515 Q Would you have known then one of our badgers' road of that time? A No. Only the one that I have of.
- 4516 Q And there was a small fire on close to the tunnel mouth, was not there? A I could not say.
- 4517 Q Do you not know that? A I do not know.
- 4518 Q Do I understand you to say that as long as a shot fire can tell gas, and as long as he knows the way is a mine to be kept, and gas tell gas when he sees it is a safety thing, and as long as he has more knowledge of gas, that is sufficient to qualify him for shooting? A No. I say he should be qualified by examination before a person competent to examine him.

4019 Q I do not ask you how I ask you, if he knows these things, is it sufficient? A If he can prove it.
4020 Q Of course, if he can prove it, if he knows these things, if it is known that he has that knowledge? A It is known by examination.

4021 Q Now, would you say it is known? Suppose it is known by examination? Suppose it is known that he has that knowledge, is it sufficient then? A No.

4022 Q Why? A It would be sufficient if a person competent to examine him.

4023 Q That is only one way of finding out that he has it. Suppose you have a certificate by a person on the stand that he knows gas, that he can tell gas when he sees it, and that he knows what duty conductors are? A We must prove that he knows these things.

4024 Q Suppose you have the proof, are you satisfied? A If we are satisfied.

4025 Q If you have the proof, are you satisfied? A If we have the proof, we are satisfied.

4026 Q Now, you can tell me gas, can you not? A No.

4027 Q Where you so close how to do it? A No.

4028 Q Do you mean to say that you, a gasfitter over for fifteen years, do not know how to test for gas? A I do not know how to test for gas.

4029 Q You know no other? A Well, I have a slight idea.

4030 Q Let us have that slight idea. Before you test you must light gas, apparently. How do you do it? A Not with a naked light.

4031 Q What do you do it with? A The only thing I have had an opportunity of doing it with is the ordinary safety lamp.

4032 Q Well, by that. What do you do with the ordinary safety lamp? A I have believed the action as nearly as I could of previous when I ever tested gas or trying to test it.

4033 Q What did you see there? A I saw the flame start hang up to the end gradually and watch the flame.

4034 Q Yes? A Well, I did the same.

4035 Q What did you notice on the flame? A I noticed no difference.

4036 Q Did you ever find out or were you ever told what to expect to see on the flame if it was gas? A Yes.

4037 Q What is that? A I was told that there would be a blue ring when the light.

4038 Q So you know what to look out for, if you are asked upon to test for gas? A I do not consider myself qualified to test for gas.

4039 Q I do not ask anything about that. You may be a very modest one for all I know. Do you know that if there is much gas and I hang about a pleasant way round inside after a light is kind? A Only from what I have read.

4040 Q Of course, how when you have read. Of course you have not had experience of it, hardly, or you would not be here. Now, when in the deepest mine you have worked in? How much ever was there methane? A I could not tell you. The end mine?

4041 Q Yes. Of course I was in end mine? A I have only worked in the end and never in the district; and of course the depth of mine I do not know.

4042 Q You have not worked in Heilmann? A No.

4043 Q Just a few words about these safety lamps. Did you tell us what there is was you first had information at North Dakota about the explosion at Keweenaw? A I could.

4044 Q What was it—230 or 240 feet, or what? A Well, it was about 240 feet when I saw them getting the lamps ready.

4045 Q And that was the first you saw of the explosion? A Yes.

4046 Q And at that time they were going lamps ready to send out to Keweenaw? A Yes.

4047 Q Do you know what mine they were sent from? Were they sent from Wabington here at once, when they heard the explosion, to get lamps and send down North Dakota? A I do not know it. I think it that way was the way.

4048 Q Were sent to those manholes (Hermann did on No. 30). If you get a depth of 4 feet from the mine, a space of 4 feet between the solid wall and the cable and a width of 4 feet, you can push in not even there, can you not? A No, of course, I suppose they could push in, but you have not very much time, so when it is necessary to use the manhole. You would not have much time for pushing. It is just a matter of getting in the first two you can.

4049 Q Of course you would not push them in any? I asked that. But, if there were five or six men wanting to get down that manhole, they could get in? A If you could get them to go in at their order, but it would be difficult to get them in at once.

4050 Q Could you get them to go? A If they have the time and apparently they could get in.

4051 Q I assume they have the time and apparently, and everything. I ask, to their minds for them? Is there not plenty of time for them? A In that case there would be.

Cross examination by Mr. James Swenson —

4052 Q Can you give me the date upon which you reported to Heald? A I could not.

4053 Q On the month? A No.

4054 Q About you had reported to Heald that you had seen the gas, you say that the location was carried further up? A Yes. He took the ordinary precaution to keep the location close to the fire than perhaps he would if it had not been for the report.

4055 Q That is the only trap you had seen gases that were prior to the Keweenaw disaster? A Yes.

4056 Q What opening did you had there? I am not asking you to name the cabin or manhole—but to what extent did it go? A It did not go off at all. It just simply opened, just the same as you light a gas jet.

4057 Q Was it more than a three feet, and did it light like a gas jet, or had it accumulated in the road and gone off with a blast? A No. It is a strong light the gas.

4058 Q What you call a blast? A Yes.

4059 Q On the other occasion, when you reported to Heald and Tolson, was it after this or had it accumulated? A It was rising.

4060 Q After you had discovered it on these two occasions and lighted it did it continue slight long? A Oh no, only for a few moments.

4061.

When—J. January, 1902

4051. Q Now, with regard to this first suggestion, you know that the Managers and under-managers now have to pass on examinations? A Yes.

4052. Q And you believe that the inspectors and clerks have not at present? A I believe that they should.

4053. Q Yes, I know, but at present they have not, and you are suggesting that they should? A Yes.

4054. Q Do I understand you to say that, if the miners knew that every man who accepted the post of an inspector and clerk had passed an examination in this subject you have mentioned, it would give greater confidence to the miners? A If the miners were absolutely sure that these men were competent.

4055. Q I ask you, do I understand you to say that, if the miners knew that these men had passed an examination in the subjects you have mentioned, the miners would feel more confident? A Yes. They would certainly would.

4056. Q It would generate a feeling of confidence among the miners—make the miners more ready to work? A Yes, I know that.

4057. Q Do you know now of any man who would hesitate to take to this occupation because of the feeling of unsafety? A I cannot say positively that I know of anyone who would not take to it.

4058. Q There is a feeling of less inclination to go on in this occupation, is that what you mean? A That is what I mean.

4059. Q And these subjects that you have mentioned, I take it, are what you consider they should know? They should have a knowledge of gas, a knowledge of dust, and of the explosive character, and they should have the ability to cut for gas? A There are only my recommendations. I would have it with an expert men, who was competent, to my best knowledge they would require to have. It is not for us to say how much.

4060. Q And you think that would be the effect upon the miners in a body, if there was had to go through some sort of that kind, there would be more confidence? A Yes.

4061. Q With regard to the second of these suggestions, that the Inspector should be armed with absolute power to order the use of safety lamps, do I understand you to suggest that the District Inspector should, without consulting anybody, and upon his own opinion, be thus empowered? A Yes. I take it that when the Inspector, who must be a qualified man, says that a place is dangerous to work with naked light and he says that either the men should be withdrawn or the safety lamps should be at once put on use.

4062. Q You may or may not know that, under the Mining Act, there is a provision for detention when the Inspector and the management differ as to some new provision which is to be taken. Do you know, there is a provision for arbitration in case of that kind? A I do not know.

4063. Q Well, I will tell you that there is. When the Inspector thinks there ought to be some provision taken for the safety of the men, and the management think it might not, there is a provision for arbitration, and for the matter to be gone into on both sides. What do you think of that as a method of settling it, so that the proprietor can be bound in the matter? A The danger for putting the lamps in it is avoided as far as possible, and, if the lamps were not put on whilst the Arbitration Board were sitting, there might be no explosion.

4064. Q Supposing they were put in in the mine in the meantime, until the arbitrator had settled the question? A There is no doubt that would have the same effect—[interrupted].

4065. Q Let me put this to you.

4066. A Yes, please. Let him answer you.

4067. A Yes, please. I understand how to wish to see that that would do for the time. It is well enough.

4068. Q Suppose a very powerful Inspector is told by somebody that he has seen gas, and, without taking the trouble to inquire more if possible, the Inspector, in an impetuous way, says, "Oh, I want safety lamps all over the mine." Do you not think that in a case of that sort a check of some kind might show that, after all, the statement was not true, or that it might be an exaggeration? Do you not think that it would be better to give the management an opportunity to know what evidence had come under the Inspector's notice, and also to answer it? A Well, of course, yes. [interrupted].

4069. Q Would it not also be better to show that there was no necessity for the use of safety lamps? A We do not like to see the safety lamps.

4070. Q You see how we have with them now that the difference Clerk has decided that there should be an extra pay? A No.

4071. Q Would it not be better to the miners who have to work with the safety lamp, and would it not be better to the proprietors, who would be put to expense, if they had an opportunity of showing that the statement in the Inspector was either false and was an exaggeration, and that no remedy really had arrived? Would not that be a better way than giving the absolute power to say that order to order the use of safety lamps straight away? I have asked you just before, quite upon their jurisdiction as a member of the District Board. I am asking you as a man, as a miner? A Well, of course, if the safety lamps were ordered in without there being any necessity for it it would certainly be a disadvantage to miners and some others.

4072. Q So that, if a man had a spare eye, against the case, he might go to an Inspector and say, "I had an explosion of gas there," and if the Inspector were so impetuous he might order the use of safety lamps all over the mine to the extent of 400 or 500? A Yes, but I do not think the Inspector should have that power, only of their own knowledge. [interrupted].

4073. Q You have passed this? "Inspectors to be armed with absolute power to order use of safety lamps?" A That would be after they have had an examination of themselves, and had satisfied themselves that it was necessary.

4074. Q Yes, understood. I am not even examining you in all. I want to find out what you think of it on things. If I mean to give a man who I think is more careful than others I want to get his opinion. Now, I take it that you think that would be a very fair solution of the difficulty, that the miners, and the management, should be bound on this question of the use of safety lamps? A That is the manner the safety lamps should be used.

4075. Q But in the manner the safety lamps should be used until it is ascertained whether the statement made as to the necessity of them is true or not? A Yes, I think that is the case.

4076. Q Do you endorse this (Recommendation, No 3): "Violations by persons prohibited, and those substantiated"? You see there it is put in a very absolute way, and you have said yourself that during your experience

satisfaction of the Mine Exam' Mine the ventilation was quite satisfactory. I think in the public ear perhaps in which I worked. Regarding the general condition of the mine I have nothing to say.

4566 Q I say, in terms of your experience with the ventilation of Mount Roskill Mine was satisfactory? A Yes.

4567 Q Do you suppose that this is as far as absolute safety, that as far as we are allowed in any mine under any conditions, is to not that is a matter of discretion? A I consider that has nothing to do with safety.

4568 Q There you are. You know there are more mines in this country with three miners in them? A That may be.

4569 Q I ask you if you know it? A I do not know of any regulations with only three working in them.

4570 Q Let me tell you that there are mines in this country with only three miners working in them; now, do you want to tell me that in a case like that the miners must have a fan, say three working miners yourself get a mine with some more, and that fan and in you do not want to suggest that those men should have a fan as per 2500 or 2700? I want to show how easy it is to reach to a conclusion without sufficient thought. Now, do you suggest that a fan should be put in every mine? A I do not suggest that three men should be put to a regulation of 2500 or 2700.

4571 Q Do you think that would be fairly work in the same way that I have suggested to you with regard to the introduction of safety lamps so that, if the Director decided a fan to be placed in a mine, and the management objected, it should be open to arbitration? A Oh, a stipulation may be put on as to the area of the mine and the number of men employed.

4572 Q Oh, you admit that it would then not of necessity be attached, you cannot make an absolute rule that I could not say that a mine with only three men employed should be put to the expense of 2500 or 2700 for a fan.

4573 Q You know that a mine with only three men employed? A Possibly.

4574 Q You know there is a mine now opened up fairly? A Mines like that are only in the preliminary stage, and, in a goodly way, they are not money and they are certainly extremely only and are selling and.

4575 Q What do you call these three mines? Now they come under the provisions of the Mining Act? A To a certain extent.

4576 Q Do not they altogether? A I do not understand that they do.

4577 Q Do you know? A I understand that they do not. They are open for a certain time before they come under the provisions of the Act.

4578 Q Suppose they are open for a certain time, and that they come under the provisions of the Act, and then they only employ three men, do you not see that it is not necessary to put them under the expense of an additional expense to put a fan? You see you have discussed that it says in your Delegation Board and there has been a delay to point out to you that they are a little too hard and that I think that there should be one thing as to the area of the mine and the number of the men.

4579 Q Now, with regard to the waste workings, we have an absolute for the complete sealing off of the waste workings? A I am not an advocate for the sealing off of the waste workings.

4580 Q Are you in a position to absolutely close off the waste workings of the mine? A I would give no opinion upon that. I think that ought to be given to the Director.

4581 Q What I understand you to tell me is this: that any gas which is generated in waste workings should not be allowed to come into the intake? A Not to me, should not come into the intake and be carried over to the mine.

4582 Q With regard to these cut throats every 20 yards (Enclosure No. 2), I understand you to say that, in your experience, the average has been about 25 yards? A Somewhere about that.

4583 Q Have you considered at all the extent to which frequent cut throats might jeopardize the roof and interfere with its security? A Well, I do not consider that it would interfere with the roof.

4584 Q Well, does not that depend on the experience of the miner? A It depends on the circumstances.

4585 Q Does it not depend on the weight the roof has? A Yes. Still I think that any danger that may arise from that can be met by special cutting of it is necessary.

4586 Q Have you made a good deal of experience? A That is a good deal.

4587 Q Do you know that in England sometimes the pillars are 75 yards square—that is, 75 yards both ways? A I have read that.

4588 Q Do you know that? A Yes.

4589 Q Do you know that that is found necessary in consequence of the great weight which is on top? A Yes. But it was also found necessary to be done by means of other, but I think or— [interrupted]

4590 Q Perhaps so. You see all at a hazard. I want to keep you on the spot. You do know that? A Only by theory.

4591 Q Of course. We have not all been in that mine. I suppose we may take it that if, in an English mine, pillars 20 yards square are found to be necessary, the same thing might apply to other places? A It is possible.

4592 Q Are you prepared to say that the same conditions do not exist in some of these mines on this coast as exist in those English mines? A I could not say.

4593 Q Do you think you have enough knowledge to say absolutely whether cut throats should be, in every case, 20 yards square? A I consider it more over for ventilation purposes.

4594 Q You consider it would be desirable for cut throats purposes? A Yes.

4595 Q I understand you to say that of the British, which is now covered off cut throats, and I quite appreciate what you said that the faulting by means of the movement of the floor and the movement of the roof, and the difficulty to drop rocks is necessary, so he must have worked with the British where the faulting was said. Is that so? I cannot say to catch you? A Yes. Where there is faulting in any great extent it is not substantial, and is very easily downgraded, and when it is downgraded on end of the air going down the mine are working, it will go through the short cut.

4596 Q Do you know that in this district there are mines in which there is a single area of 200 yards? A Yes. I have heard so.

4597 Q Do you know how the air is carried there? A I do not know how it is carried there.

4598 Q I only want to show you the difficulty of experience. There is a current in pipes. You did not know that? A No. I did not know that.

- 6415 Q Do you know why one particular wire goes to the engine of paper in order to send out through? A No. I do not.
- 6416 Q You do not know whether that is in wire engine or not? That is to say, to send the light on top—in wire the design of light? A No. I do not know that.
- 6417 Q I suppose you do not know anything about the hydrogen flame (Reconstruction No. 7), except that it engenders a much smaller percentage of gas than the safety lamp? A That is all.
- 6418 Q When signed to the 500 cubic foot of air for a house (Reconstruction No. 8), you do not know how much a house uses? A No. I have no knowledge of the measurement of air.
- 6419 Q What is your reason for recommending that the doors should close of their own motion? A So that there would be less possibility of their being left open.
- 6420 Q And that you tell on the reconstruction order which they are motionless left open? A Not passing through. And it is sometimes necessary that the door has to be drawn through the door.
- 6421 Q And there is a liability? A Of their being left open.
- 6422 Q What is your opinion as to the effect upon the minds of a knowledge? Oh, I can leave that. It will shut off its own signal?—do you think or do you not think, that it will make men more careful with regard to seeing they are shut? A Oh. I do not think it.
- 6423 Q You know that even where a door closes at once, and, either by being hung on, by prohibition, or by spring, there is still a liability for it to be blocked open by a lot of studies or a piece of mail? A Oh, yes. It is a possibility that there might be something to prevent its closing.
- 6424 Q Do you think that the knowledge that the door does not automatically move when that comes—that they close of their own accord, would or would not make men consider what wrong that they were closed? A No. I do not think it would make them any more consider than now—now who have a sufficient knowledge of the responsibility.
- 6425 Q You taking the average man, not taking the careful man; but the average man who has nothing else and does not take the trouble to think. What sort of effect would it have on a man of that kind? A I do not know.
- 6426 Q I am asking you to judge of human nature generally, not of a man as careful as yourself; but of that class of people who do things, and say "Oh, that's all right, I'll shut these shut." You know that class of man, do you not? A No.
- 6427 Q What effect would it have on that class of man? A I really could not say.
- 6428 Q You could not say that it would make them more consider than when they know that some of the doors do not close of their own motion? A The reason for asking that these doors should close of their own motion is so that if they become open from some cause—not opened by a man—they would close again. They may be opened when there is no man there to open them.
- 6429 Q I ask you, if the man knows that if these doors are constructed so that they will shut of their own accord, do you not think that the confidence in a door as a self-closing device is more whether they are closed or not, and in some cases might they not be blocked open by mail or by mail, when it is known that the doors do not close of their own motion, they would be on their guard, and I would naturally watch to see that the doors were closed?—I just repeat that to you. It did not occur to you, did it? A Certainly it had occurred to me; but I do not think that men working in a mine would be so foolish.
- 6430 Q Well, what is your reason for suggesting double doors (Reconstruction No. 10)? A Because, a door being there, a man is apt to go through it, and, if it is only a single door, when he opens the door a certain amount of air will pass through. If it is a double door, the air will not escape. He will close the first door, and pass it roughly the other, and the air will escape. And, on other cases, and has to go through those doors, and it is necessary for the doors to be opened while the coal goes through.
- 6431 Q Mr. Remney, it is hardly necessary for the witness to explain that. It seems quite what may be called a reasonable proposition.
- 6432 Q Mr. Remney, I ask you, I want you to give me your explanation of the fact that in the experiments are taken by the men themselves to check the air in the mine? (Reconstruction No. 11) "What do you say to a plan for that?" A For one thing, the company have not got the legal rights for a long atmosphere.
- 6433 Q But you have not yet to check mine? A Yes, we have.
- 6434 Q There are sufficient men to check who have that knowledge? A It may be; but men are very careless about taking the position.
- 6435 Q Why? A Well, I do not know why.
- 6436 Q There you have been asked to take the position? A No. I have never. I am not competent to take it at all costs.
- 6437 Q Do you know of any man who does not take it? A I could not possibly say.
- 6438 Q What do you think? A I do think that men have not got the message to take the job, and it is hardly paid sufficiently. I do not think that they have the courage to do it—and who is depending on their duty says to a man—no.
- 6439 Q Now, have you talked about that—how often do you see you have had men say to me the minutes ago? A Well, it was many years ago that I would say that. I could not say. On three or four occasions—possibly more.
- 6440 Q Is that now still true and the men still with early legs? A No. I do not. I found that it would be much more serious if they were in a room. But, certainly, I would like to see whether it had been 5 feet wider. I would have said that the men had not much courage.
- 6441 Q How many of you were there in that? A I could not tell you the number.
- 6442 Q Could you tell me if you were there, about? A There were about, and I am here in the company of about.
- 6443 Q I suppose a man was going? A I do not know.
- 6444 Q What distance was there then between the line of coal and the wall of the mine, between the men and the coal? A That I could not tell you.
- 6445 Q What did you see then you suggest a particular measurement? A Yes, that is only because that there will be a difference in the air in the mine.
- 6446 Q The total depth was 40 feet, was it not? A Yes.
- 6447 Q And the width of that along the line of coal? A Yes.
- 6448 Q And the height? A Well, something to this—[Intercepted]

1432. Q Do you know what they are as in depth, in the same way as in? A There are no mistakes that I know of. We do not use the word "road" in the same way as in the English language.
1433. Q You do not think there is any mistake in the way as in the English language? A No.
1434. Q You would not think of the thing of a road with ships only running 1 or 2 miles on land? A An ordinary road.
1435. Q You? A It would be very easy then if there was not sufficient space between the ships and the road, I am sure to find that road.
1436. Q But supposing there is a travelling road? A Well, if there is a travelling road, the men are supposed to go the travelling road.
1437. Q It is then a travelling road there is no need for extra conductors? A No.
1438. Q It depends on the circumstances then—upon the distance between the rails and the width of the road? A Yes.
1439. Q Now, with regard to (Recommendation No. 18) instruction to engineers—I understand you to say that there is a daylight tunnel in the town in which you are now engaged? A Yes.
1440. Q And you have been there some years? A Yes.
1441. Q And have not that you have never gone out that way, so that in case of an accident you would know what road to take? A The rules of the railway prohibit us from going on any other road but the travelling road.
1442. Q Have you ever asked for permission to go, so that you might know where you were? A No, not personally.
1443. Q Have you ever felt curious to know what is the best way out of a tunnel? A Yes, I have.
1444. Q Have you ever asked permission to go and see the tunnel? A No, I have not.
1445. Q You would have done so? A Yes. But the rules strictly prohibit me.—[Interposed]
1446. Q You know that rules are not made of adamant. You could ask the Manager, and say, "I would like to see the way out in case of an accident." If I could have done so, but I did not, because I heard that others had asked and had been refused.
1447. Q And you think the men would be willing to take instructions from the deputy as to the way out? A Yes.
1448. Q But when they were passing about at every mile? A Yes.
1449. Q Different ways? A Yes.
1450. Q Now, with regard to the fear of repeating (Recommendation No. 18): I understand you to tell Mr. Wade that you have never had any instructions? A No, not personally.

Re-examination by Mr. Lupton—

1451. Q As to these powers of the Inspectors, do you know of an Inspector having conferred with the management as to the advisability of safety lamps being put in? A Not of my own knowledge, but I understood that.—[Interposed]
1452. Q What? Mr. Lupton, I think it would be much better for this evidence to come from the person themselves. This witness can only give it as through hearsay. The Manager will be here in all probability; and I suppose the Inspectors will be here.
1453. Q Mr. Lupton, it is so much material, Mr. Lupton, that it is hardly worth while going on.
1454. Q Mr. Wade? The suggestion is that it has happened. I do not think that it is material. I object to that.
1455. Q Mr. Lupton? My object was to show that the danger did continue after the Inspector thought it should be finished.
1456. Q Mr. Wade? The suggestion is that the Manager would not take any precaution, even when the lives of the men are endangered.
1457. Q Mr. Lupton? I make that a deliberate statement.
1458. Q Did you hear of a deliberate? A Yes.
1459. Q What was the authority? A I heard that it was at one of the collieries in the Northern District.
1460. Q Did you hear anything concerning a colliery in this district? A No.
1461. Q Do you think it was to let the matter of the safety lamps go to the discretion of the masters and the men? Do you approve of that suggestion?
1462. Q Mr. Bruce Smith? It is not suggested. I have not suggested it. I said, "Would it not be in the interests of the masters and the men that the matter should be submitted for arbitration?" but not to the arbitration of the masters and the men.
1463. Q Mr. Lupton? Do you consider that the men would have sufficient knowledge to say whether safety lamps should be used in the case or not?
1464. Q Mr. Bruce Smith? I never suggested that.
1465. Q Mr. Lupton? No. Mr. Bruce Smith simply suggested that it was just as much in the interests of the men as of the mine owners to arbitrate, as it might not be expedient to allow the Inspectors to look in safety lamps where they might not be wanted.
1466. Q Mr. Lupton? In the interests of the men, do you still say that the Inspectors should have the absolute power to order the use of safety lamps? A In my opinion, the Inspectors should have the power to say that the lamps should go in a tunnel.
1467. Q Now, did the result of the Arbitration Court at all affect the position of the miners as regards the recommendation for safety lamps?
1468. Q Mr. Bruce Smith? Surely that is for the Court to say.
1469. Q Mr. Lupton? You made a suggestion that when the Arbitration Court award the men had not been as anxious to have the safety lamps because they would not get anything extra for them.
1470. Q Mr. Bruce Smith? I did not put it in that way at all. I merely suggested the opposite.
1471. Q Mr. Lupton? I think you did suggest that.
1472. Q Mr. Lupton? I cannot remember it in that way. Mr. Bruce Smith simply told jokingly that the suggestion that perhaps the men would not be so very anxious.—[Interposed]
1473. Q Mr. Bruce Smith? The same I heard said.
1474. Q Mr. Lupton? You are, Mr. Lupton, that is what you think to the Court, and the public do not see the evidence in that way. That after three days the evidence is brought in by Mr. Bruce Smith as representing the Crown, and it is suggested that the men do not care about the report.

St. Louis, 12 January, 1893

4026. *Mr. James Smith* [My friend is very eager to say that I have suggested that the men do not run about the engine. I have pointed out some other things for the witness but I have not yet gone into the consideration of the engine. I got it to last year, and asked him whether he had considered that he might have a party of twenty men trying to develop a mine and the consequence of this, and yet he proposed under his rule that they should be employed to go to the engine of 2400 or 2100 to put in a fire, and that would waste three whole working shifts.]

4027. *Mr. Lyndell* [That is not the question at all. It was with reference to the safety lamp.]

4028. *Mr. Smith* [When Mr. James Smith said suggest it, the witness objected to it. Now, do you want anything more?]

4029. *Mr. Lyndell* [Q Now, you might tell us what in your opinion should be the number of men—how many men do you say there should be in a mine before the bottom should be established and the fire substituted? A I would have that to be one who has some knowledge.]

4030. *Q* Who would you have that to be? A To the Inspector of Mines.

4031. *Q* You told us that you knew there were large pillars in the Old Country; do you know how these pillars are fastened up? A I understood they are fastened by hand or wood.

4032. *Q* Not cement? A Not cement.

Recommendation by Mr. Robertson:—

4178. *Q* With reference to the qualifications for deputies and chief drivers, who, do you think, should examine the men—do you think the managers for those men? A The individuals or Board who now examine Managers and under managers, I should say.

4179. *Q* And do you know the composition of the Board at present? A No, I do not.

4180. *Q* Do you know that two of the members are Managers—one is your own Manager, Mr. E. R. H. A No, I do not.

4181. *Q* And the other is Mr. Parsons, together with a Government Officer, Mr. Herdell—now, do you think that they are any more likely to know the qualifications of a chief driver than the Manager of the mine in which the chief driver is employed? A Well, I do not think that the individuals who examine men for these positions are competent to say that these men have the qualifications.

4182. *Q* But do you think it is Mr. Sullivan in his capacity as manager, is any more competent to examine a person as to his qualifications than in his capacity as a Manager? A The fact of his having that position would render him more competent than a man who has not that position. I take it to be in your case, that person because of his competency.

4183. *Q* But he now who is a Manager to-day may be an incompetent to-morrow—do you not think that the Manager who knows the personal qualifications of the men, knows his experience, is in a better position to appoint a chief driver or a deputy than a Board, for example? A I cannot see how that would be.

4184. *Q* Do you not think the Manager of your mine knows your qualifications better than the Board of Examiners? A I do not know, unless I chose before him for an examination. He cannot know my qualifications without an examination as in the first place.

4185. *Q* But do you mean to say that Managers appoint deputies or chief drivers without examination? A I do not know.

4186. *Q* Do you think it is possible? A I do not know. All I wish to say is that these men should be competent—do not know that they are not—but I say that they should be.

4187. *Q* But do you not think that it is reasonable that a Manager, before he appoints a deputy or chief driver, would make a visit to the mine, and he would make the appointment from his knowledge of the person? A If he had the same qualifications as the persons who make the appointment, then he might be competent to make the recommendation, but he may not have the competency himself for any number of these men are qualified as not.

4188. *Q* Do you mean to say that there is any Manager in New South Wales who is not competent to appoint a deputy or chief driver? A No. I do not say that. I do not know. All I say is that they should be competent.

4189. *Q* You ask for measurements of air at various points in a mine—for the air to be measured at different points in a mine? A Yes.

4190. *Q* Are you aware that that is done at present? A No, I am not aware.

4191. *Q* But it may be? A It may be done.

4192. *Q* Now, as to the watering of the roads—how would you water in the case of a mine with 20 or 30 miles of roadway where there are no such—as means of taking a tank to it? How would you water that to the end? A Well, I am not an engineer, but I can give you an instance of how the mine is watered at South Park.

4193. *Q* Yes? A At one station of the road and there are pipes which convey the water out of the mine, and at intervals there are taps placed on these pipes, and at intervals these taps are turned and allow the water to play on the road—it is on the side of the roadway, and that water drops the air, and it is taken through the mine. And they have a pipe right across the mouth of the intake roadway, and the tip is placed on that with a spade. It sends a spray, and that is turned on right through the whole of the mine with the air, and, consequently, drops the air.

4194. *Q* That means pay a, and tape, and so on. Now, what is the length of this system? A That I could not tell you.

4195. *Q* Is it half a mile? A Somewhat half a mile.

4196. *Q* That is a very different thing than 2½ miles, is it not? A Yes. Of course I take it that through five miles you only half a mile. They send just as well be a mile or half a mile more.

4197. *Q* But it would not cost? A Yes, but they serve another purpose. Independent of watering the mine, the pipes were there to carry water out of the mine.

4198. *Q* No that the expense in that case was no expenditure, as a matter of fact there was no expense? A No.

4199. *Q* But suppose you had in large old mine and pipe all the roadway, say 20 or 30 miles of road. Would not that be a large expense? A Yes. I dare say it would be no expense.

4200. *Q* And a large quantity of water would be used? A Yes.

4201. *Q* Now, in the South Park Mine the temperature is not very high, is it? A No; in fact I do not know how high the temperature is.

4736. Q. And the expenditure is not very great. That is, once entered, it remains cheap for a long time? A. Not in all parts of the mine.

4737. Q. Well, in a mine where the expenditure is very much higher, the consumption of water would be very much greater? A. Yes.

4738. Q. And I suppose you know that water is very scarce in many mines? A. No. I have known more where it was the opposite.

4739. Q. But do you know that there are differences in the districts that have led to pay \$2,500 so long since from Helyar? A. Oh, yes. I understand that during the late drought it cost the collieries large amounts for water.

4740. Q. Now, with respect to the Manager's duties, you wish the Manager to be compelled to give more attention to these duties. Do you know anything of what duties they have to perform? A. No. My recommendation is that they should be even more about the mine.

4741. Q. Yes; but of course you cannot say what a Manager's duties are—the very large duties that you are not aware of, other than merely seeing the working places? A. Well, I take it the chief duty of a Manager is looking after his men.

4742. Q. Exactly, but he may be outside thinking. Some proprietors may pay their Managers to look out on work? A. Yes, just so.

4743. Q. Do you not think it would be a better plan for a Manager to sit down and think, rather than to wander around physically by a water shaft through a mine? A. I do think it is necessary that the Manager should see the conditions under which the men are working from time to time.

4744. Q. Do you not recognize that the Manager is an administrator? A. Yes.

4745. Q. And that he may be doing very effective work sitting in his office thinking and drawing? A. That may be possible. We do not say that, but that should be taken up as one of the main.

4746. Q. You say something about working time a week? A. Yes, I suppose a week once a week.

4747. Q. Do you think that is practicable? A. I suppose it should be, under no.

4748. Q. Supposing you have a mine where it is impossible, where a Manager, if he started at the beginning of the week and walked all through the mine would not have reached off at the end of the week, and would not have any more left for other duties? A. Not if he was walking all of a time, certainly.

4749. Q. Now, I think you said a week once anything was an effort to report it? A. No, I did not say that.

4750. Q. Yes, I think you did. I have taken a note of it. I said in one of the clerk's reports.

4751. Q. No, I beg your pardon. Then was with reference to the clerk's list; that if a man saw anything that was wrong he was afraid to report things as stated.

4752. Mr. Wade: Afraid to report things as stated.

4753. Mr. Peterson: Yes.

4754. Q. Are you aware that the difficulty is in getting the men to report,—that they are invited to report?

A. No. I am not aware of it, except by the rules—the Special Colliery Rules.

4755. Q. And nothing about a charge of dynamite will cause them to write a report sometimes? Do you know that some Managers will refuse to refer to them from their workmen? A. No, I do not.

4756. Q. Do you know that officials have been prevented by the Managers from speaking to agents? A. No.

4757. Q. You do not know anything. With reference to making lamps for smoking, you did not say what difference there was in the way a safety lamp or a smoking lamp? A. If it is made to have a flame light, it is made to have a safety lamp if it is constructed.

4758. Q. I am not drawing the position. I merely want to see if you know what is the difference. Is there a greater degree of safety in using a wire,—that is, you do with a wire? A. Make the wire hot, and there is no flame.

4759. Q. Does not the fire spark? A. Yes.

4760. Q. Would not that ignite gas? A. I do not know, I am sure. But I understand that gas will only ignite from a flame.

4761. Q. Would not the spitting of it a few sparks? A. If it was a flame.

4762. Q. The way mind, there does not seem to me, under much difference. You made some reference to a refinery in the north where the Manager had objected to use safety lamps? A. That is only a vague recollection of mine on that case.

4763. Q. Have you any recollection of the miners at the same refinery objecting? A. No. I have not.

4764. A. So you cannot say? A. I cannot say.

4765. Q. With reference to the Inspector having absolute power in order safety lamps to be used, I think you said, if he had the power and power to use safety lamps when the matter was referred to a decision, that that would satisfy you? A. No, I cannot say it would satisfy me altogether.

4766. Q. I understand that, in answer to Mr. Ross Smith, you thought such a partial power would be satisfactory? A. It may get over it; but I do not consider it would be a complete satisfaction in the mine.

4767. Q. But assuming that such power would give you some power to the Inspector, and the Inspector ordered safety lamps, and afterwards, when the matter was referred to arbitration, it was found that lamps were not necessary, the one party would have to use the engine already? A. Oh, of course, that is a matter that I cannot get into.

4768. Q. But would not that be an—suppose the Arbitration Court held that safety lamps were not necessary, against the opinion of the Inspector? A. Yes; but the fact of the Arbitration Court compelling that they were not necessary may not satisfy me. We may still be of opinion that the Inspector was right.

4769. Q. That may be. I do not question that. Would it not be rather hard on the proprietors to have increased expense suddenly? A. It would also be hard on the men to have to use them.

4770. Q. When do you know that lamps are used in some of the mines? A. I understand that they have to be improved.

4771. Q. Well, suppose an Inspector were to order safety lamps to be used in any colliery in this district tomorrow, how could that be done when there are no lamps present? A. Well, at three or four lamps presentable, and it was altogether much to be considered, I say the men should not work there.

4772. Q. But if the proprietors or owners thought that it was perfectly safe for the men to work there, do you not think it is true that they should have an opportunity of being heard by an impartial tribunal? A. I do not think it is right that they should have the power to say what or if not safe or unsafe.

Witness—J. Ramsey, 15 January, 1905.

4742 Q. Yes. They would not have the power to say—they would merely express an opinion; and, if they were wrong, that they would have to abide by the decision of the Arbitration Court. A. If the Court was constituted of independent men and experts men, they it might be effective.

4743 Q. But it is, Mr. Ramsey, there is expert provision here in the Act as to the constitution of the Court, it says —

Every person who is appointed as arbitrator under the act as well as a personal mining engineer, or a person accustomed to the working of mines, and no person shall act as arbitrator or expert under this Act who is employed in, or in the management of, or is interested in, the mine in which the arbitration takes place. (78c. 5a, sub-section 2.)

Do you see the arbitrators must be absolutely disinterested; would not that arbitrators meet your views?

A. It is the maximum length every man, or the men who believe.

4744 Q. I cannot get any farther with you. Do you know anything of the cost of Item 1. A. No, I do not.

4745 Q. Do you know whether the cost would be £300, or £350, or £2,500, or £2,000? A. No, I have not gone into the matter of cost.

4746 Q. Do you know that some ventilating plants have cost upwards of £10,000? A. It may be so.

4747 Q. Do you not think, if a colliery is fitted with a furnace doing efficient work, that, if they were obliged to incur the cost, say, £5,000 or £10,000, of erecting a fan—do you not think that would be rather hard on the Company? A. Yes, it may be hard on the Company, but it would be much harder on the miners in case of accident or something through the use of the furnace.

4748 Q. But, I think that you are aware that a furnace can do very efficient work, and furnaces are at present used in some of the largest collieries in the world? A. Well, I think my own personal experience is that ventilation by fan is much better than ventilation by furnace.

4749 Q. It is only a question of power. If you have sufficient power in the furnace, of course you can get the same ventilation with it as you can with a fan, but I am not assuming that, I merely wish to take into consideration the cost of existing mines where the ventilation is efficient.

4750 Q. With reference to the construction of employees in the different parts from the mine, I think you said it would not take a very long time to show? A. No, I do not consider it would take a great time for men to get acquainted with these modes of work.

4751 Q. Now, if you have anything from 10 to 20 miles of roadway, main, and so on, in a mine, how long do you think it would take to show all the men in the different sections, not only their own sections, but the other sections? A. But I am only speaking of what exists.

4752 Q. I am talking of existing mines? A. In this district.

4753 Q. Yes? A. Where it is a 70 miles from the working face to the surface.

4754 Q. Now, where there are 70 miles of roadway, if you wanted to show the men the different parts from the different districts, you would have to show them 50 or 70 miles, how long do you think it would take, where there may be a dozen different districts? A. Well, I think it should not take 5 miles in an hour; and I think it might, at the colliery where I am working, it is not more than 1 mile down to the surface, from any one point.

4755 Q. I am sure it is not? A. No, but a man would do it in very much less than an hour, or about an hour.

4756 Q. But I am assuming that it is a very much larger colliery, and you started at one end, and when you were reaching the end you could not reach them through the darkness? A. I do not say that the men need a great deal of instruction. The deputy got with us, and they follow him. Their own previous knowledge and experience will show them the road so that they will be able to find it again.

4757 Q. But you are evading my question, I want to know from you how long it would take to show men over 70 miles, say, of roadway? A. If a man walked 70 miles of roadway, I should say it would take him five hours to walk it; but I do not say that there is any necessity for him to walk that far.

4758 Q. But you want him to be shown not the different parts, therefore he must be shown every possible way from every district in the mine? A. If there is a daylight tunnel? I do not think it would be any convenience to have a road from that to the centre of the mine.

4759 Q. They could lead a road from that to the centre of the mine? A. Yes, but we do not know it.

4760 Q. But I am assuming that a road... do you want them shown every way, or only one? A. I want them shown the way out by the daylight tunnel, where there is a daylight tunnel.

4761 Q. But they are all daylight tunnels, I take it? A. Yes. But they are not the ordinary surface offing roads. Most are not shown in this by them. If some have a knowledge of them, they get it by accident.

4762 Q. I do not suppose I can get an answer from you as to how long it will take to construct new work subsequent to the different ways from a mine where you would have to travel, say, 70 miles? A. In South Wales, it is all made, the men would not have to travel 70 miles.

4763 Q. I am not asking about South Wales. Now, in the case of front and back shafts: when these men work to be shown the way out, the front shaft would have to be shown the way out, and then the back shaft? A. Not necessarily. They could be shown the way out or back Saturday, when they came out all together.

4764 Q. But suppose that back Saturday would not be sufficient time? A. I think it they would have more time on back Saturday than any other day, seeing that they knock all at 2 o'clock.

4765 Q. I know that, I suppose, 1800, five days, or to a back Saturday in two days a week, with not sufficient, what would you do? A. I think it that the deputy would at least come every quarter, or there, show the men in that district the way out by the daylight tunnel.

4766 Q. But suppose once in every quarter at least, or half an hour, was not sufficient to show the men the way out? A. If a man is shown the way out? I think it he would know it.

4767 Q. Yes, but if it was a matter of six or seven days, travelling every hour, to know all the different parts—[interrupted]? A. Six or seven days? travelling?

4768 Q. Yes. A. I cannot understand you, if it would take a man six or seven days to reach the daylight tunnel?

4769 Q. I do not say six or seven days travelling; I am supposing it took the man six or seven days, after they finished their work, after hours, to be seen again with all the men in the different districts? A. Well, if the men think it is of much use, or important, they would not grudge it at the same time. If they were asked with the importance of knowing the way out, the matter of time would not be any consideration with them.

4598 Q Do you think the men would willingly spend a couple of hours whenever they were required? Whenever they were called upon by the mine? A Yes.
4599 Q They would? A I do think they would.
4600 Mr. Anderson J I am glad to hear that.

Continued by Mr. Birkie—

4592 Q Do the 3 put a constant yearn place on each working shift when you see them? A Yes; they are supposed to.

4593 Q But do they do it? A Well, of course I am not in a position to see that they exercise it twice in the morning day. They put the dip of the results there.

4594 Q And is that all you do in this connection that you wish? A That is all.

4595 Q You never see the deputies themselves? A I have not seen them.

4596 Q Has it happened frequently? A Not frequently, only on one occasion that I remember that I have not seen the deputy.

4597 Q In your place on your working shift? A Yes.

4598 Q And which worked do they adopt when they examine your place? When they come in? A They try it with the ordinary safety lamp.

4599 Q Do they travel round in the Geyser with the ordinary safety lamp? A Yes.

4600 Q And how do they try it? A By raising the light up to the roof, looking down, then down, and raising it up to the roof.

4601 Q Do they test any particular part of the place? A No particular part.

4602 Q Just where they happen to be standing? A Oh, not always. They go generally to the farthest point of the working place.

4603 Q And do they do this on every occasion that they come in? On every occasion that you have seen them come in? A Yes. Generally they do this.

4604 Q Have you known them to come in and make an examination at all? A No.

4605 Q That is the day examination. I am talking of now? A Oh, in the day examination, I have not known of a case where the deputy did not examine in a day. The time that I am referring to was on the night, on the night shift.

4606 Q You had an examination at all that night? A I had no examination. I did not see the deputy.

4607 Q Where was that? Do you know? A Yes. That was last Friday night. [Afterwards corrected by him (Ex. No. 14), to Monday night, 12th January, 1934.]

4608 Q Is that in a section where you are using safety lamps? A Yes.

4609 Q And you worked your shift then without having any examination whatever? A I did not exactly stop the full shift. I think I left about twenty-five minutes before the time for going.

4610 Q What time did you go on that shift? A At half past 2, leaving the lamp at 2 o'clock.

4611 Q Were you satisfied by any effect that your place was safe? A No.

4612 Q And you are satisfied up till—0 how did you leave? A About 2 o'clock, on a little job.

4613 Q How far is the location generally kept from the lamp? A A few feet.

4614 Q Is that the distance generally allowed? A Sometimes it is closer, and sometimes further away.

4615 Q That is, speaking of your present place? A Yes.

4616 Q Well, going back to the place, you have worked before that one, and recently, has the location always been kept well up? A Yes, the location has been kept near enough up to the face.

4617 Q Have you always had, in your opinion, sufficient ventilation travelling round the working face—sweeping round the working face? A Well, sufficient for working purposes; but as to whether there is sufficient there to carry off gases that may be working, gases that may be coming from the face, I could not say, but what I can say is that there is not a greater quantity swept off round the face, or simply because of the ordinary low sweep—movement.

4618 Q At all events, and even to think that you have sufficient for working purposes? A Just so.

4619 Q And that is pretty good in the South Buth Geyser during the time you have been there? A Yes.

4620 Q Do I understand you to advocate the abolition of the service companies for Managers? A Yes, if they are found on examinations not to be competent—not to be qualified for the position.

4621 Q And do you propose that they should go through the same examination as others who have already got certificates? A Yes.

4622 Q And I think you have a model way, before this Commission here to do, that deputies and sholemen should also be examined by the same Board which examines the Managers and under-managers? A Yes.

4623 Q Would you, in the case of a Manager who may be making a large salary, who admits that he does not know anything at all about gas, would you suggest that person as qualified to examine the sholemen? A Certainly not, if he does not have knowledge of gas.

4624 Q Would you suggest that men so qualified to appoint a deputy? A Certainly not.

4625 Q And you think that the most serious of a Board of Examiners of these is a better guarantee than the wisdom of our Managers on the appointment of sholemen and deputies? A It is a very much greater safeguard to the mine.

4626 Q That is what you advocate? A Yes.

4627 Q And you have told us now that you are advocating the appointment of Managers on their merits, or their qualifications? A Yes.

4628 Q Do I understand you further to mean that you should have as much as possible of the face of a Manager, with these qualifications, to do all the work? A Yes.

4629 Q And that direct work and other things of that kind, should be left to other people? A Yes.

4630 Q And you ought to have the benefit of his knowledge and the money which is possible? A Yes.

4631 Q How often have you seen the face of a Manager around the Buth Geyser? A I rarely I have seen him pretty regularly about South Buth.

4632 Q Is this more the custom? A Yes. Since the division, and since the introduction of the safety lamp.

Witness—J. Swamy, 12 January, 1932

4152 Q And prior to that, what was the rule as far as your knowledge goes? A Prior to that, I have no recollection of so many as Inspector's Rule II is in presence to the explosion. It may be possible that I was there, but I have no distinct recollection of being out there, but I have seen the Inspector very frequently at South. Both.

4153 Q Does the Inspector himself make any examination when he comes into your place? A Yes.

4154 Q What does he do? A He goes through the usual performance with his lamp up at the roof and in various places about the — [interrupted]

4155 Q He goes through the same process as the deputy? A Yes. Although of course he is armed with a different lamp.

4156 Q Does you a shooting place there? A Yes.

4157 Q And you have a shot here there? A Yes.

4158 Q What made of procedure does he adopt prior to firing a shot? What method of examination? A Just the ordinary examination with the ordinary safety lamp. He raises it up to the roof and goes through a performance.

4159 Q Is your shot hole drilled and prepared in every way ready for firing before he comes in? A Yes. Everything is done, and the shot is got ready for lighting.

4160 Q Does he make any inquiries about the preparation you have gone to? Sometimes he may ask the depth of the hole.

4161 Q Does he measure the depth of the lighting? A Not in all cases.

4162 Q Did you ever see him do it? A I have seen him do it.

4163 Q But the general rule is to take your word for everything? A Yes.

4164 Q Does he ever come back after the shot has been fired? Q Yes, sometimes.

4165 Q Sometimes he comes back? A Yes.

4166 Q But not as a rule? A In all cases he does not come back. As a rule he does. Of course before the use of safety lamps he always came back.

4167 Q Would it be possible to have your hole drilled in the soil and, and the shot fire would not know? A It would be.

4168 Q So that he has got to depend entirely upon the word of the workmen as to whether the hole was the solid, or where the lighting.

4169 Q And as to the charge that is in the hole? A Yes.

4170 Q Does he ever ask you that? A Yes.

4171 Q He knows it entirely by you whether you have a pound or three pounds? A Yes.

4172 Q He knows it entirely to the man that is there? A As far as I have experienced it.

4173 Q And really all the shot fire does do is to put the light to the face and light it after making the examination with the lamp? A That is all.

4174 Q Have you any shot about that part where you are working? A Well, there is very little shot there now. The conditions are not as so dusty as they were before the spray which I have told the Court was playing about the outside a very.

4175 Q That they do not spray at the face? A No. But I have seen spray.

4176 Q But has the spraying of the travelling roads about the sandstone of the face? A It has had a slight effect.

4177 Q But you regard this place as dusty? A Yes.

4178 Q Does he also ever make any examination for dust? A No; I do not know that he does even in a distance toward the dust.

4179 Q Have you entered the first fire in any way or make at all about the fire before the dust? A No.

Further examination by Mr. Robertson —

4180 Q Did you say that before the introduction of safety lamps the deputy always came back after a shot was fired? A Oh, yes.

4181 Q But he did not see the shot, did he, then? A In cases where the shot fire fired shot he used to go and examine the place after he had fired the shot.

4182 Q When did he do that? Had you any shot there prior to the introduction of safety lamps? A In one particular head it is in two particular instances.

4183 Q Once they were using safety lamps there? A No.

4184 Q And they had shot holes in that case? A The deputy used to fire a shot for us.

4185 Q As it was the morning fat of three in three places? A I suppose the management did not consider the conditions safe for men to fire their own shots, and, therefore, they gave instructions for the men not to fire shots, and the deputy in fact did for them.

4186 Q Were you working in that heading? A No.

4187 Q How did you know that? A I was working at the time immediately alongside it, and have been on the face when the deputy fired the shot for them.

4188 Q Then you were in a position to watch the movements of the deputy? A I was not in a position to watch his movements in the face.

4189 Q But you were in a position to say he did or did not go back again? A Oh, yes, and also I, subsequently, was present three days ago as a witness in this particular district, even before we got the lamps.

4190 Q And in that case he always came back? A Yes.

4191 Q But he does not always now? A Not at all now. Well, I have known cases where he did not go back after firing the shot.

4192 Q That is within your own knowledge? A Within my own knowledge.

Continuation by Mr. Wade —

4193 Q You said that last Friday night was the first night you had known the deputy not to come to your team? A Yes.

4194 Q Were you on the night shift? A Yes.

4195 Q Working in it? A Yes.

4196 Q Was somebody else working in your place before you went in? A Yes.

4197 Q Another pair of men? A Yes.

4198 Q And did you go on when they came out? A I went in as they came out.

4199 Q And you were working successive shifts? A Two successive shifts.

Witness—2 Inds. in January, 1905

4912 Q You went down by the long wall—old No. 21 A Yes. It appeared that some of the men had worked there some years ago; and they struck it

4913 Q You came out there? A Yes

4914 Q Did you crawl along some low place? A Yes—some 2 or 3 feet high

4915 Mr. Spangle Q Did you experience other things to say remarkable events? A I had had experience amongst them, and I took precaution. I wanted a handkerchief, and had it under my mouth, and knotted through this

4916 Q Where did the slow creep strike you first? A Getting near the furnace. The flames would be evident towards the furnace. It was a yellow colored smoke, so thick that you could hardly see the lamp; and the flame of the lamp would be 10 inches long

4917 Q That is, a white light? A Yes

4918 Mr. Spangle Q It was drawn up? A Yes.

4919 Mr. Spangle Q Did you notice whether any burst coal dust was thrown about? A You had not much time to notice it

4920 Q On that account? A I never saw any burst and dust

4921 Q What about the heat? A The heat was intense, the temperature was high.

4922 Q When was the heat greatest? A The heat was, of course, going towards the furnace, and on the travelling road on the way out, the heat was great on the way out

4923 Q Did you at any time see any men there? A I did not see any men, but simultaneously with the blast I looked at the heading, and saw something white coming down near where the Dinwiddie was working

4924 Mr. Spangle Q That is the first part of your experience. Dinwiddie was the next to your place? A Yes

4925 Mr. Spangle Q What was your place? A Furthermore, it was a beautiful place.

4926 Mr. Wade Q Good money? A Good money and easy going

4927 Mr. Spangle Q I wish to know whether the smoke was coming from the east or the west, at the place where you were working? A It was coming from Powell's Flat direction

4928 Q As you saw it coming from Powell's flat did you see any flame? A I did not notice any.

4929 Q You thought it was very white? A It was very like white smoke

4930 Q Did you afterwards go into the mine? A I went back immediately I came out.

4931 Q Had you a lamp when going to again? A A safety lamp.

4932 Q Where did you get it from? A Somewhere at the mouth gave it to me

4933 Q Do you know anything as to the safety lamps which were available? A I could not say it. Just what I heard. I know I got one and went in. I think I brought out the last dead body

4934 Q What was the time? A A quarter of 8 o'clock

4935 Q What direction did you go in? A I went down towards No. 1 Flat.

4936 Q At any time did you observe any indication of flame anywhere? A At places in No. 1, at the following day. I afterwards saw about a number of holes fully burnt

4937 Q Can you tell me where bodies were badly burnt? A I can tell you some—Kemp killed. He was somewhere about the 7th, sitting by the side. A man named Ruck—the Ruck was poking off him. I think he was working about the same heading

4938 Mr. Spangle Q It is he dead? A Yes, he is dead

4939 Mr. Spangle Q Yes. A Alfred Herold was badly burnt, and a boy named Smith in a small hole with him. No, I think Ruck was in the mine with a man named Herold. Herold had a drill which had been driven through his thigh. He was badly burnt, he was unconscious. The Ruck was poking off him, and the Ruck was off him

4940 Q Smith and Herold were in the mine? A Yes; the man and the boy

4941 Q Yes. A Jack Powell was badly burnt; he was very close to them. Willy Black had all the clothes burnt off him, all he had on was one boot, and that was shrivelled up with him. The hair and everything else was burnt.

4942 Mr. Spangle Q Where was he? A We found him a quarter of a mile from the tunnel's mouth. He was lying on the heading rope road. He was a boy of 15 or 17.

4943 Mr. Spangle Q Is there any other evidence of burning of anybody else that you can think of? A There were other holes which I picked up, but I could not identify them. Some of them were undoubtedly burnt. I saw the Ruck burnt off him.

4944 Q Can you say where you picked them up, or cannot you remember? A Of course, I saw a large number of holes burnt inside the pit, but I was speaking of what I saw inside the pit.

4945 Q Is there anybody else you can think of in the pit, or can you say where you found any bodies which you could not recognize? A Well, about the 7th—down about that portion. There were bodies there which we put into the timber building. We threw five or six into the timber, and some were badly burnt. There was a man, I met that I had to go to work with on the day time, but I could not say that they were so and so, unless somebody said to me that they were so and so, and then I could tell.

4946 Q What about? A I saw the Arkline and Harman; I refused them.

4947 Q What about them? A They were unconscious

4948 Q From heading? A Yes, the hair and smocks were badly burnt. I could not recognize the father from the son. The father was identified, probably, by the Ruck left he was.

4949 Q Was there anyone else—anyone outside that you knew was burnt? A Of course. I knew Jack Clark, who was burnt, a boy named Ruck, and Stanley Richards. I saw them somewhere inside in the heading near the explosion. They were working outside the railway

4950 Q In addition to showing the bodies burnt, did you notice any evidence of flame in any part of the pit? A No

4951 Q On the props? A No, I never saw any props burnt throughout the whole of the pit.

4952 Q Not outside? A No, I did not think that I did

4953 Q Did you look to see whether it was done? A It was not my mission—I did not look, I did not trouble myself at all.

4954 Q Have you any idea as to what caused the explosion? A I have my own opinion.

- 4369 Q You say you did? A Well, of course, I do not know, but my opinion is that the African went into some of those old workings, and they struck it.
- 4370 Q Struck what? A Gas.
- 4371 Q Fire down? A Yes.
- 4372 Q And what then? A They started it.
- 4373 Q Can you tell us whether you know anything of gas having been in Kambla Indian the disaster?
- 4374 A Well, it is generally understood — (interrupted)
- 4375 W. Faith? I object to what was understood.
- 4376 Q What? A I am going to get specific answers.
- 4377 Q You? A I can say of my own personal knowledge. I was working at 41 or 42, I think that was the number. I was working a heading running down towards Powell's Flat, and there was gas there. I knew the men working on the other side of me.
- 4378 Q Who were they? A Jack O'Farrell and Dan Henley had just started a haul on the right. O'Farrell and Alf Davis were working a haul next to me.
- 4379 Q Can you locate that on the map? A It is between where I was working and Powell's Flat.
- 4380 Q Now to Charles English? A Jackson and Howell were working next to Peter at the time.
- 4381 Q How far back was that? A I have had one coal seam—that would be three months. The disaster happened in the middle of the year, I think. It would be seven or eight months.
- 4382 Q What was it you observed? A The conditions were very bad then. When we went in the smoke was there from the preceding day. We would frequently go up to Deputy Evans about it. He would say, "I cannot understand it." I said, "It is there right enough, in the morning you can hardly see your road into the hole." He would give no reason. He thought the condition was good. It passed him.
- 4383 Q Yes? A Of course all the men complained as well as me, the whole of them.
- 4384 Q What after that, regarding the place? A Oh, the condition was bad. That was the only place I saw where I think the condition was bad.
- 4385 Q Did you observe anything else at that time? A I was working with Allen at that place. After firing shots — (interrupted)
- 4386 Q Is this the same time? A Yes. After firing shots we waited until the smoke had cleared and we could go on, and I think on numerous occasions I spoke to him about his way of lighting gas.
- 4387 Q Spoke to whom? A Allen.
- 4388 Q Did he light gas? A He used to light it.
- 4389 Q How often? A I would not say how often exactly, I would say not after every shot, but on numerous occasions at all events—perhaps every other day.
- 4390 Q When he did light it, how long a time would elapse after the shot had been fired? A Sometimes longer than others.
- 4391 Q The average? A In some shots it went off quick with a report.
- 4392 Q How long elapsed after the shot had been fired in the time he lit the gas? A Generally you stop out for a few minutes at all events.
- 4393 Q When he came back, how far would he be from the face of the road when the gas was alight? A You can tell by the appearance of it. Always when approaching a shot you have the lamp up, and he would go and light it.
- 4394 Q What would be the nearest distance that he would get to the face before lighting the gas? A Sometimes nearer than others, sometimes 2 feet or 3 feet.
- 4395 Q Sometimes 2 or 3 feet, so 2 or 3 feet and sometimes was in the coal? A On different occasions.
- 4396 Q On how many occasions would he be 5 or 6 feet from the gas? A That is a big thing to ask me.
- 4397 Q How often would he be 5 or 6 feet from the face? A I have not been able to say often. I think you could find him, and he will tell you the same.
- 4398 Q Was he so old never? A Yes. A man who has had years of experience—often years—and a good reason for.
- 4399 Q Do you know whether any report was made about lighting the gas, and if so, to whom was it made? A I think there was a report.
- 4400 Q To whom was it made? A We were there, and you could hear the ringing noise out of the rim of the hole. On going up to him you could see the water coming out. Charles Allen said, "What is it?"—but he knew what it was. He said, "That is gas."
- 4401 Q What said, "That is gas"? A Evans said that.
- 4402 Q In addition to that, when the gas had been lit by your water, were you present when he said to Evans about the lighting of it? A He never spoke to Evans about lighting it. I said it was a dangerous thing.
- 4403 Q To whom did you say it was dangerous? A To Allen, my mate. Sometimes it went off with a report. That was when a good shot had been made, and the end came down.
- 4404 Q When was it Evans and it was gas? A While we were working there. The mine was there all the time, and the water was coming out. The ringing noise was from the rim behind you.
- 4405 Q Did Evans come down to where you were working? A We saw him every day while he was out there. At other times it seems was deeper.
- 4406 Q Did he make any suggestion? A He came in and looked at it. We thought him a good deputy—what is, David Evans.
- 4407 Q Did he test the gas in that place of yours? A No.
- 4408 Q Did Evans know whether your mate knew of the gas? A No, my mate never told him that while we were working there. He would not tell him afterwards.
- 4409 Q Was there any other occasion when gas was lit by you or your mate? A No.
- 4410 Q Do you know if you lit it on any other person's haul? A I did not see it.
- 4411 Q Have you a friend any person who knows that you was in his place? A No. I know a man who was with my haul, and said that he had nearly got his up. It was Harry Wiggins.
- 4412 Q When then? A It was the week before last. I was working there about twelve months ago. I was working in Powell's Flat, on the road to do to Harry Wiggins with Thomas Powell.
- 4413 Q Have you any idea where he is? A I have not him. I think he is in the country yet, although he told me he was going to Africa. I think he could be found.

Witness—J. Ellis, 15 January, 1902

4894 Q Was it before the explosion you were working there? A I was working a pillar in a shaft—
I think

4895 Q How long before? A Eight weeks before

4896 Q Was there any accident at that time? A There was nothing there that I saw

4897 Q Was it anything to say about that part you were working in? A I did not see anything

wrong. It was a dangerous part of the pit to work in, and it was pretty hard

4898 Q Did you have any accidents with Mr. Rogers about that place? A Well, I may have had an
accident with him about the way the slope was running

4899 Q Do you remember anything about that? A It was not good. We were not getting the number of
ships we were entitled to. I was sent as a delegate to see Mr. Rogers, and the thing was rectified. He
said that he did not think such things were going on. We were getting six or eight ships, and other men
were getting up to thirty in that

4900 Q He did not give any reason, did he? A There were some places in particular that they wanted
working out quicker, that was one of the highlights—161-2, 3, 4

4901 Q They wanted it working out quickly? A He never gave any reason

[At this stage the Commission adjourned until 2 o'clock]

Afternoon

On resuming at 2 p.m., Mr. W. B. Pratt attempted to take short-hand notes of the evidence and proceedings.
Mr. JOHN HELLIN previously sworn, was further examined, as follows:—

4902 Mr. [Judge] Q I think you were talking about Waples, who was nearly blown up? A Yes

4903 Q What was he working? A He was working in the afternoon bed to me—in Fould's Flat

4904 Q How long before the disaster? A Well about three or six months before

4905 Q Did you see anything up with Waples? A No. He came to me, and told me he had had a
very bad cough, he was quite a bit of a cough, and getting on a little better, when he struck this blow

4906 Q Speaking about this place where you were not getting the number of ships you wanted, and
Rogers, you said that it was the reason? A I used to be Rogers—one of us was sent by the Lodge
We were not getting the number of ships we were entitled to. Some were getting thirty ships a day,
and we were getting eight or ten. This was three months before the explosion. In particular there were
Nos. 161-2, 3, 4. Four machines, but it was late in the day. They were the last numbers on the slope.

4907 Q These men were working on some pillars they were to get up, and they had as high as thirty ships a day,
and were getting good money. We were getting eight ships a day, and not making our bit

4908 Q Did you discover the reason why they were furnished with more ships? A From other mines
I did

4909 Mr. [Pratt] Anything which the Manager and I do not object to, but it is unsafe to take the gossip
of the miners

4910 Mr. [Pratt] The witness might say what again he found on the matter

4911 Mr. [Judge] Q Yes? A I had the black-and-white about the previous month—the month
before I was on a different set. Mr. Rogers—and told him that we were not getting anywhere near the
number of ships we were entitled to, and drew his attention to the sheet. Some were getting the
high number. About this Mr. Rogers said that there were special places, where they wanted to get the
coal out very quick. I said "How the more who are getting 50 or 70 tons a day, other men 100 or 160 or
perhaps 190, that," and I told him the names of those men. He said that he did not know that those
men were going on like this

4912 Q Rogers being the statement that he wanted to get the coal out quickly, from anything that you
observed did you know why they wanted to get the coal out quickly?

4913 Mr. [Pratt] How can he tell why they wanted to get the coal out quickly?

4914 Mr. [Pratt] Q Did the mine show why they wanted to get it out quickly? A The road told me
that it should be put out quickly

4915 Mr. [Judge] Q Why? A The tale was that there was bad air and gas there, and that they
wanted the place worked out quickly. I got this from one of the short-hand notes on the pit

4916 Mr. [Pratt] Q When was those pillars? A 161-2, 3, 4. I could name none of the men. Andy
Peterson, I could name as working there. The numbers are different from the place.

4917 Q Could you point the places out? A I do not know whether I could

4918 Mr. [Judge] Q Say where those pillars were that they were working out quickly? A 161-2, 3, 4.
They were getting low ships to say me

4919 Q What was the place called? A They were called special places

4920 Q Could you name any of them? A No that I could say; they were called special places

4921 Q Can you give me the names of the men? A Andy Peterson and his brother were two of the
men working there at the time, I cannot think of any other men

4922 Q Is Peterson living now? A Yes, he is deputy of Kewell

4923 Q Do you know of any other places of your own knowledge where there was gas in Wembley,
although it may not have been stated, six weeks or two months of the disaster? A No, I would not
say that I was in any other place, myself, only the place I have spoken of, where Alfred used to light it

4924 Q You spoke about that being a good depth? A There is no doubt that it was what we call
a good depth

4925 Q What do you mean? A I will tell you this much. There was a number of things on the Mining
Act which it was not to be done. The Act requires that the working places be safe. A spring would be in the way. It would
not come up and out. You should have springs up, so that you should have a pump up. A well like that
was considered a good depth

4926 Q That is one view of what is now called a good depth? A Yes

4927 Mr. [Pratt] Q It would not put you in a necessary way? A No

4928 Mr. [Judge] Q It would not put you in a necessary way with the Regulations of the Act? A No,
and Mr. [Pratt] as well as me. You know where we were to do it. Some of the coal you could
not blow off the roof—no, that part of the system

4929 Q You said Rogers required the working places below. A Well he would come in some-
times he would not come right up to the face. If it was a short day, sometimes he would not come out and
go by

- 5137 Q Was the horse dead? A Dead right enough.
- 5138 Mr. Brown. Q Was the hair of the horse singed at all? A No; although Kemp Stiffed was sitting up 50 yards away, and he was singed.
- 5139 Mr. Brown. Q Did you see the horses? A No.
- 5140 Mr. Brown. Q Which way was the horse sitting, to the east or west of the house? A He would be more west of the house.
- 5141 Mr. Wade. Q Is it a matter of fact he would be away from his own place when you found him? A I think he was in Peter's place. There were two dead horses there. There was one in the turning where he is buried now, and the horse of which I was speaking had no harness on.
- 5142 Mr. Brown. Q The horse with the harness on was not singed? A I did not pay much attention to the horse. I only noticed that he was burnt.
- 5143 Mr. Wade. Q What position were Hewlett and Smith in—prone against the side? A No; Hewlett and two of Smith had fallen down. They were on the side—Hewlett and the boy Smith.
- 5144 Q The other was a man's? A Yes it was.
- 5145 Q Were they lying close? A I think the boy Smith, who was about 15, was sitting upon a bench in the middle. Hewlett was on the floor, and there was a girl—Miss Queen's child—run into his thigh. He had left the desk on the table some time previously.
- 5146 Mr. Brown. Q Perhaps he had been thrown against it in the robbery? A Yes, perhaps so.
- 5147 Mr. Wade. Q The desk may have been standing there, and he would be blown against it? A I expect so. It was the next morning that we found him.
- 5148 Q Were Hewlett's clothes burnt? A Yes, I could not recognize him, although I worked alongside him.
- 5149 Q Were his clothes burnt? A I did not see it. I know the boy Smith was burnt.
- 5150 Q I am talking about the clothes? A They may have been burnt, but I did not see them, the clothes are they were not.
- 5151 Q What was left of the boy Smith? A All he had on his own was burnt. His hair and everything was burnt off him. I know he had a new pair of boots, because I was living next door to him. They were new boots, and the boot that was left was charred.
- 5152 Q How charred? A Burned up with fire.
- 5153 Q What was the appearance of the other left? A Dark, like a sugar. His legs were broken and burnt about, but I saw no other bodies. He was lying on the path, he was not covered up at all.
- 5154 Q You only guess that the clothes were burnt off him. You did not see any bones? A I did not see any bones—no.
- 5155 Q You did not find any loosening of the skin? A I would not say that I did.
- 5156 Q Loosening—as you found in the case of James? A I would not swear there was a loosening of the skin. It was not broken although he had been burnt off.
- 5157 Q Was his body as black? A Yes.
- 5158 Q With one foot? A Yes, the skin might be broken, but we did not notice it.
- 5159 Q The other bodies were broken, and you noticed it? A Yes.
- 5160 Q Where was Tom Farrell? A I think it was Tom Farrell who was burnt. His face was all burnt. No, I think it was Jack Farrell.
- 5161 Q You do not know who it was—you found his body in the first flight near the table? A Yes.
- 5162 Q Is he the one with the broken nose? A Jack Farrell was a short man.
- 5163 Q You found him in the travelling road? A Yes.
- 5164 Q Was he a man over 30 with a black face? A Yes even Tom Farrell, I do not think we had anything to do with him.
- 5165 Mr. Robertson. Q I do not think you found the man on the travelling road? The man you refer to was found on the telephone cable. One was Farrell—that is right—Farrell, a Hewlett, and a boy named Smith? A Yes.
- 5166 Q There was another man found in the travelling road, and that was the one Mr. Wade is speaking of? A I know nothing about that. The body I found was when Mr. Robertson was with me.
- 5167 Mr. Wade. Q What was his position? Was the skin burnt on his face? A I will not swear that his skin was burnt.
- 5168 Q What about his hair? A I think it was burnt off. I could not recognize it.
- 5169 Mr. Brown. Q You could not recognize it? A No.
- 5170 Mr. Wade. Q Was his hair burnt off in the street? A I could not say—there was a doubt about his identification.
- 5171 Q Now, as to the cause of the explosion? Were you in Victoria working place? A I was close to it, not in it.
- 5172 Q You are forming opinions as to an explosion—you think it might be a likely place for the explosion to start. They were old workings, and if you think a light might have gone off? A That is the nearest way to do it. It is my opinion it was a gas explosion.
- 5173 Q As to the place where you worked at the morning you saw Peter's Flat? A Yes.
- 5174 Q What time would you expect to see the shop? A You could see a decent time a day, if you liked.
- 5175 Q What did you do? A I fixed at one time.
- 5176 Q When you fixed during the day, did the smoke clear off? A No, not for a long time.
- 5177 Q How long? A There was always smoke there. I was spending for some quarters. For the first two or three weeks, or perhaps a month, there was smoke there at all hours.
- 5178 Q Was it thick? A Yes, when we were in the morning.
- 5179 Q What time were in the morning? A I do not think it was thicker in the morning. The more you added to it the more it would be. We were always firing it in that desert. Of course, we told the people about it.
- 5180 Q Do you say there was no current of air there? A I do not say there was no current there—its was a slow one.
- 5181 Q A slow one? A Yes, a very slow one.
- 5182 Q Were you shocked if you got into how much coal did you bring down? A It was nothing of the kind. It all depends how the ships were going.
- 5183 Q What did you bring down on an average? A You might bring down about 2 tons.

[Witness—J. E. W. 12 Dec 1893, 1207]

5181. Q When you found the gas light after a shot, was it in consequence of that that you complained about the ventilation? A The reason we complained to Evans about it was that when we went on in the morning, it was very bad. We all complained in about it. He said, "I cannot make it out."
5182. Q Was the ventilation better arranged? A That is more than I can tell you.
5183. Q Was there any special difficulty? A There must have been something wrong.
5184. Q Did it improve? A After a while the ventilation was better—on a week or so.
5185. Q Were you in a hole? A Yes.
5186. Q Was it bad when you were breaking all this land? A No. The hole started the preceding night. It was worked 15 or 20 yards. The water was there on the morning when you went into the place.
5187. Q How long did the water last? A All day.
5188. Q What point of time—a week or a month? A It lasted for a few weeks.
5189. Q Saw about the engine, none that you speak of—was it from the water? A No, it was just water. There was something else coming out with it.
5190. Q Did that come from where the water was coming out? A Yes, from the same place.
5191. Q You might see a drop of water coming out of the side, and then hear the noise.
5192. Q Do you know whether the coming out of water is not sometimes mistaken for blowing of gas? A The coming of water sometimes for gas?
5193. Q People believe that they hear gas, when it is only water? A A blow of gas would be when the gas is confined and escapes.
5194. Q That is the same with water. Do you not know that water is often mistaken for gas? A No, I do not think that water could make the sound I heard there.
5195. Q I do not ask you about there. Do you know that the sound of water coming from the fire could be mistaken for a blow of gas? Do you know whether the sound is similar at all? A I could not say that water would make that sound. It was a hissing sound—a ringing sound.
5196. Q Did you test it? A Yes.
5197. Q Did it go off? A No.
5198. Q Did Allen try it? A Yes.
5199. Q Did you make any arrangements to try and light it before you spoke to Evans? A I cannot say, I cannot remember that one.
5200. Q When was this—in the face of the coal? A On the rib—in the face.
5201. Q How far back from the face? A The same was on the rib, it might be 6 yards from the face. It was there daily.
5202. Q What kind of place was it, a wet place? A It was wet, but there was no water—not to speak of.
5203. Q What wet? A No.
5204. Q To try there was an water to speak of,—what do you mean? A After you brushed off in the morning, the floor would be damp in the morning.
5205. Q Where would it come from? A From the fire—out of the coal I expect.
5206. Q You asked Evans what the noise was? A I never did so, my name asked him.
5207. Q He said, "What do you call that?" A He said, "Oh, that is gas."
5208. Q Before you tried to light it? A Before or after.
5209. Q Did you never hear the sound of water coming out of some place before? A I have heard it coming up out of the face of the earth.
5210. Q I am speaking of a coal mine? A I found that water there; you could put your ear to it and hear it.
5211. Q And you think the sound must have come from the gas, you say? A It could not come from the water, the pressure of water from behind would not make that sound.
5212. Q We are now past finishing the pillars? A No, that work had been running on for some considerable time.
5213. Q Did they work the pillars out? A I cannot say whether they did.
5214. Q How long were they going on at the rate of about three days a day? A A long time.
5215. Q How long would it take to work it out,—a month, a fortnight, or a quarter? A I am speaking that part of the pit was being worked to advance for some months. They were making a good thing—and good matter in that part was at the pit.
5216. Q Is it a common thing to make a pillar, and get the coal out as quick as you can? A, It is all depends on the opinion of getting the coal out.

A number of Exhibits used to illustrate the evidence of witnesses at the Crown's Inquest were not available at Enfield, though, but the Court was enabled to accept them as evidence. They were afterwards marked Enfield and numbered as follows, the order of the numbers being the order in which the witnesses were called—

Exhibit No. 1—Enfield, W.—Map by which the evidence was illustrated at Crown's Inquest.			
Exhibit No. 2—Frank, Matthew	do	do	do
Exhibit No. 3—Harrison, John—Map by which his evidence was illustrated at Crown's Inquest.			
(Given during evidence on 21 & 22)			
Exhibit No. 4—Morse, John—Map by which his evidence was illustrated at Crown's Inquest.			
(Given during evidence on 23 & 24)			
Exhibit No. 5—Evans, David—Map by which his evidence was illustrated at Crown's Inquest.			
Exhibit No. 6—Frank, Adam, junior	do	do	do
Exhibit No. 7—Hargreaves, W.	do	do	do
Exhibit No. 8—May, Jonathan	do	do	do
Exhibit No. 9—Roberts, David	do	do	do
Exhibit No. 10—Stoddard, Adam	do	do	do
Exhibit No. 11—Barnes, George	do	do	do
Exhibit No. 12—Stoddard, Thomas	do	do	do
Exhibit No. 13—Arden, John, A	do	do	do

(The Courtroom, at 3 o'clock, adjourned until 10 o'clock on the following Tuesday.)

TUESDAY,